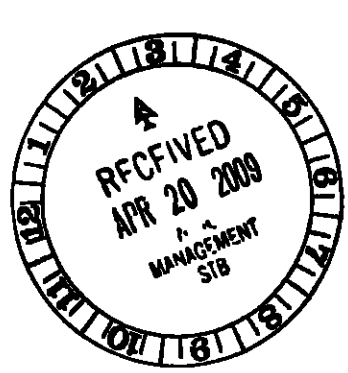
ASSOCIATION OF AMERICAN RAILROADS



Law Department
Louis P Warchot
Senior Vice President-Law &
General Counsel

April 20, 2009

224911

Honorable Anne K. Quinlan
Acting Secretary
Surface Transportation Board
395 E Street, SW
Washington, D C 20423

Re STB Ex Parte No 558 (Sub-No 12), Railroad Cost of Capital – 2008

Dear Acting Secretary Quinlan

Please find enclosed an original and ten (10) copies of the Comments of the Association of American Railroads and its Member Railroads for filing in the proceeding referenced above A copy of the same on a disk in MS Word format is also provided for the Board's convenience in addition to an Adobe PDF

Please date-stamp the extra copy of the Comments and this letter, provided for that purpose, and return the same to the undersigned, via the individual hand delivering them

Respectfully submitted,

Louis P. Warchot
Counsel for the Association of
American Railroads

Enclosures

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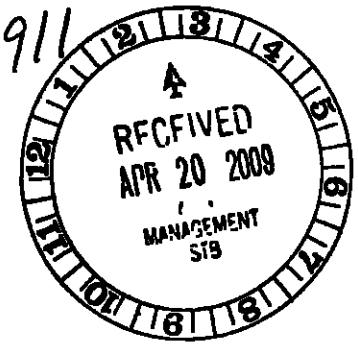

BEFORE THE
SURFACE TRANSPORTATION BOARD

RAILROAD COST OF CAPITAL — 2008	)	EX PARTE NO. 558 (Sub- No 12)

COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS AND ITS MEMBER RAILROADS

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April 20, 2009

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Verified Statements

Tab	Witness*	Subject
1	John T. Gray	The railroads' market value capital structure, overall cost of capital, cost of common and preferred equity, and cost of all types of debt
2	Bruce E. Stangle	The railroads' cost of common equity using the Multi-Stage Discounted Cash Flow model

*Verified statements are referenced in these comments by witness name – viz., V S Gray at _____

SURFACE TRANSPORTATION BOARD

RAILROAD COST OF CAPITAL — 2008	)	EX PARTE NO. 558 (Sub- No. 12)

COMMENTS OF THE ASSOCIATION OF AMERICAN RAILROADS AND ITS MEMBER RAILROADS

By order served March 6, 2009, the Board instituted this proceeding to determine the railroad industry's cost of capital for the year 2008 That determination, as the Board noted, will enable it to make the statutorily required (49 U S C 10701 (d)(2), 10704(a)(2)) annual individual railroad revenue adequacy determination for 2008 The Board noted further that the cost of capital determination may also be used in various other STB railroad proceedings See Ex Parte No. 558 (Sub-No 12), *Railroad Cost of Capital – 2008* (Served March 6, 2009) (Slip Op at 1)

The railroads, through the Association of American Railroads (AAR), are submitting herewith their calculation of (1) the railroads' 2008 cost of common equity capital: (2) the railroads' 2008 current cost of preferred equity capital, (3) the railroads' current 2008 cost of debt capital and (4) the 2008 capital structure mix of the railroad industry on a market value basis.

The AAR's calculations are discussed in the attached verified statements of John T Gray, Senior Vice President, Policy and Economics of the Association of American Railroads

and Bruce E. Stangle, Chairman. Analysis Group. Inc. These statements establish the following

1 The 2008 cost of debt capital is 6.57 percent (VS. Gray p.22).

2 There is no preferred equity capital for 2008 (VS. Gray p. 33).

3 The 2008 cost of common equity capital is 13.35 percent (VS. Gray p 33)

4 The capital structure of the railroad industry is 21.34 percent debt, 0.00 percent preferred equity, and 78 66 percent common equity. (VS. Gray p.34).

From these data Mr Gray concludes that the overall railroad industry cost of capital for 2008 is 11.90 percent (V S. Gray p 34)

I. Introduction

The sole purpose of this proceeding is to determine the railroad industry's cost of capital for 2008. Thus. while the revenue adequacy standards are not at issue in this proceeding, it has been held that the current cost of capital will continue to be the sole standard of revenue adequacy, and that the cost of capital will be computed using the current cost of debt and equity and market value weights See Ex Parte No 393 (Sub-No 1), *Standards for Railroad Revenue Adequacy*. 3 1 C C. 2d 261 (1986), *aff'd sub nom*, *Consolidated Rail Corporation v United States*, 855 F.2d 78 (3rd Cir 1988)

II. The Cost of Common Equity Capital

In its March 6, 2009 order instituting this proceeding, the Board specified that it will calculate the cost of equity component in its annual cost of capital proceeding using a simple average of the estimates produced by the Capital Asset Pricing Model (CAPM) adopted in

STB Ex Parte No. 664, *Methodology to be Employed in Determining the Railroad Industry's Cost of Capital* (served January 17, 2008) and the Morningstar/Ibbotson Multi-Stage Discounted Cash Flow Model (MSDCF) adopted in STB Ex Parte No. 664 (Sub-No. 1), *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, (STB served Jan. 28, 2009) [1] See Ex Parte No 558 (Sub-No. 12), *Railroad Cost of Capital – 2008* (served March 6, 2009) (Slip Op at 2) [2] Mr. Gray used a simple average of the CAPM and Morningstar/Ibbotson MSDCF models adopted by the Board in his calculation of the cost of common equity in this proceeding

A The CAPM Methodology

Under the CAPM methodology as applicable to the annual cost of capital proceeding, the cost of common equity is calculated by determining the return an investor would receive on a risk-free investment and by adding to the risk-free return a premium associated with the risk of railroad stocks. The premium is calculated by multiplying the market risk premium of

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[1] The Morningstar/Ibbotson MSDCF model adopted by the Board in Ex Parte No 664 (Sub-No 1) is a modified version that includes only the railroads that pass the screening criteria set forth in *Railroad Cost of Capital—1984*, 1 I C C 2d 989 (1985), for inclusion in the sample of railroads used for the annual cost of capital determination See Ex Parte No 664 (Sub-No 1), *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, (STB served Jan 28, 2009) (Slip Op at 4)

[2] In its January 28, 2009 decision in Ex Parte No 664 (Sub-No 1), *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, the Board determined that using a simple average of CAPM and the commercially accepted Morningstar/Ibbotson multi-stage DCF model to calculate the cost of equity will yield a more precise determination than relying on CAPM alone As noted by the Board, "[T]here is no single simple or correct way to estimate the cost of equity for the railroad industry, and countless reasonable options are available Both the CAPM and the multi-stage DCF models we propose to use have their own strengths and weaknesses, and both take different paths to estimate the same illusory figure By using an average of the results produced by both models, we harness the strengths of both models while minimizing their respective weaknesses The result should be a stable yet precise estimate of the cost of equity that we can use in future regulatory proceedings and to gauge the financial health of the railroad industry " (Slip Op at 15)

the stock market as a whole by a factor, known as Beta, that represents the non-diversifiable risk of holding railroad stocks In formulaic terms, the CAPM can be expressed as

K = RF + (MRP x Beta)

Where K = the firm's cost of equity,
RF = the risk-free rate,
MRP = the market's risk premium, and
Beta = coefficient of systematic, non-diversifiable risk of the stock

Mr. Gray's attached Verified Statement explains how AAR calculated the cost of equity using the CAPM methodology The risk-free rate and the market risk premium were retrieved directly from the Federal Reserve Board and Ibbotson Equity Risk Premium sources approved by the Board in the 2007 cost of capital proceeding. Ex Parte No. 558 (Sub-No. 11), *Railroad Cost of Capital – 2007* (Slip Op at 6). The calculation for Beta was made using the S&P 500 Price Return Index and the same methodology employed by the Board in the 2007 cost of capital proceeding. See Ex Parte No. 558 (Sub-No. 11), *Railroad Cost of Capital – 2007* (Slip Op at 7), V.S. Gray at pp. 27-31.

The values determined by Mr. Gray for the elements of the CAPM methodology were 4.36 percent for the risk-free rate, 6 47 percent for the market risk premium, and 0 9338 for the future market risk of the railroad stocks ("Beta")

Based on a four-railroad composite (determined using established procedures) and the procedures used by the STB in the last cost of capital proceeding, Mr Gray estimates that under the CAPM methodology the cost of common equity capital for 2008 is 10 40 percent V.S. Gray at p 31

B. The Morningstar/Ibbotson MSDCF Methodology

The Morningstar/ Ibbotson MSDCF methodology, as summarized by the Board in its Ex Parte No. 664 (Sub-No. 1) decision (served January 28, 2009), calculates the cost of common equity capital as follows:

"The cost of equity in a DCF model is the discount rate that equates a firm's market value to the present value of the stream of cash flows that could affect investors. These cash flows are not presumed to be paid out to investors; instead, it is assumed investors will ultimately benefit from these cash flows through higher regular dividends, special dividends, stock buybacks, or stock price appreciation. The incorporation of these cash flows and the expected growth of earnings are the essential aspects of the multi-stage DCF we are adopting here.

"The Morningstar/Ibbotson model defines cash flows (CF), for the first two stages, as income before extraordinary items (IBEI) minus capital expenditures (CAPEX) plus depreciation (DEP) and deferred taxes (DT), or

$$CF = IBEI - CAPEX + DEP + DT.$$

An average cash flow figure is used as the starting point of the analysis under the Morningstar/Ibbotson model. To find the average cash flow, the model uses the 5-year period leading up to the year being analyzed, and the total cash flows for that time period are divided by total sales, which determine the 5-year cash-flow-to-sales ratio. The ratio is then multiplied by the total sales for the year being analyzed to obtain the average cash flow estimate for that year. For the third (and final) stage of the Morningstar/Ibbotson multistage DCF model stage, Morningstar/Ibbotson uses two additional assumptions: that there is no depreciation or deferred taxes. Therefore, in the third stage, cash flows are based solely on income before extraordinary items.

"Growth of earnings is also calculated in three stages. In the first stage (years 1-5), the firm's annual earnings growth rate is assumed to be the median value of the qualifying railroad's 3- to 5-year growth estimates as determined by railroad industry analysts and published by Institutional Brokers Estimate System (IBES). In the second stage (years 6-10), the growth rate is the average of all growth rates in stage 1. In stage three (years 11 and onwards), the growth rate is the long-run nominal growth rate of the average U.S. economy. This long-run nominal growth rate is estimated by using the historical growth in real GDP and the long-run expected inflation rate."

Ex Parte No. 664 (Sub-No. 1) decision (served January 28, 2009) (Slip. Op. at 5-6).

The cost of common equity capital using the Morningstar/Ibbotson MSDCF model adopted by the Board is calculated and explained in the attached Verified Statement of Dr.

Bruce E. Stangle. Chairman, Analysis Group, Inc Dr. Stangle calculates the cost of common equity capital using the Morningstar/Ibbotson MSDCF model as 16.29 percent V.S. Stangle at p 7

C Conclusion as to the Cost of Common Equity Capital

Under the Board's methodology, the cost of common equity capital is the simple average of the results using the CAPM and Morningstar/Ibbotson MSDCF models The simple average produces a cost of common equity capital of 13 35 percent V S Gray at p. 33.

III. The Cost of Preferred Equity Capital

Preferred stock is a hybrid security which has some characteristics of debt and some characteristics of equity Its cost depends on its specific features The methodology used by the Board in the last fifteen proceedings applies the following criteria

(a) Where the preferred is not convertible into common stock, and where the corporation is not required to redeem the preferred at specific times, the cost of preferred equity is equal to its current dividend yield

(b) Where the preferred is not convertible but is subject to mandatory redemption providing holders of the instrument with a premium, the cost is equal to the current dividend yield, plus the present value of the premium

(c) Where the preferred is convertible at the option of the holder, and the market values of the preferred and common indicate that conversion is likely to occur or that the conversion right controls the price of the preferred, the preferred has the same cost as common equity.

Because the four-railroad composite had no preferred stock outstanding at the end of 2008, there is no 2008 cost of preferred equity capital. V.S. Gray at p 33

IV. The Cost of Debt

The cost of debt includes costs for three categories (bonds, equipment trust certificates, conditional sales agreements) of debt instruments, plus flotation costs To determine the cost of debt for bonds, Mr Gray has computed the average current bond yield for all 61 of the publicly traded bonds (during 2008) of the sample railroads that comprise the composite railroad This methodology is identical to that used in the last 18 cost of capital proceedings. See Parte No. 558 (Sub-No 11), *Railroad Cost of Capital – 2007* (Slip Op at 3-4). Under this approach, the bond yield is effectively based on a sample representing 65 percent of the total market value of the bonds issued by the railroads in the sample. As the Board has recognized, equipment trust certificates (ETCs) and conditional sales agreements (CSAs) are not actively traded in secondary markets. Their costs were therefore estimated by comparing them to the yields on Treasury securities that are actively traded [3] This is the same methodology used by the Board in the last 21 proceedings The composite current cost of debt is the market-weighted average cost of bonds, ETCs, and CSAs, plus a small floatation cost.[4] Using the Board's established methodology, the railroads' 2008 cost of new debt is 6.57 percent. V.S Gray at p. 22.

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[3] V S Gray at pp 12, 14-15.

[4] The Board, in its decision in Ex Parte No 558 (Sub-No 11), *Railroad Cost of Capital – 2007* noted that it "would welcome a better and more transparent calculation of flotation costs in future proceedings " (Slip Op at 5). In this proceeding the AAR calculated bond flotation costs by using data reported by the sample railroads to the Securities and Exchange Commission (SEC) regarding eight new debt offerings in 2008 The AAR believes that such methodology meets the Board's criteria for a "better and more transparent" calculation of flotation costs V S Gray at pp 19-20

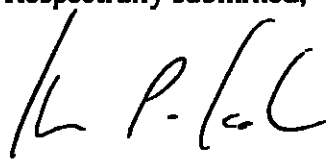
V. The 2008 Capital Structure of the Railroad Industry and the Overall Cost of Capital

Pursuant to the Board's March 10, 2009 decision, the market values of debt, preferred equity, and common equity were compiled to compute the 2008 capital structure of the railroad industry. The railroads' market value capital structure on a market value basis is 21.34 percent debt, 78.66 percent common equity capital, and 0.00 percent preferred equity capital. V S Gray at p. 34. Based upon this capital structure, the overall 2008 cost of capital is 11 90 percent V.S Gray at p. 34

Conclusion

The Board should determine that the railroads' cost of capital for 2008 is 11 90 percent.

Respectfully submitted,



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Counsel for the Association of American Railroads
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April 20, 2009

CERTIFICATE OF SERVICE

I hereby certify on this 20th day of April, 2009, I served by first class mail, postage prepaid, a copy of the forgoing on the following

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Kenneth P. Kolson

BEFORE THE

SURFACE TRANSPORTATION BOARD

EX PARTE NO 558 (Sub-No. 12)

RAILROAD COST OF CAPITAL — 2008

VERIFIED STATEMENT

OF

JOHN T GRAY

SENIOR VICE PRESIDENT — POLICY AND ECONOMICS

ASSOCIATION OF AMERICAN RAILROADS

April 20, 2009

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List of Appendices

Verified Statement
of
John T. Gray

I. Introduction

My name is John T Gray I am Senior Vice President – Policy and Economics of the Association of American Railroads (AAR), with offices at 50 F Street, N.W , Washington, DC 20001. The AAR is the trade association of the Nation's major railroads, as well as the railroads of Canada and Mexico. The AAR's United States railroad members, which include all of the Class I railroads, account for about 95 percent of our Nation's total railroad freight operating revenue.

When appropriate, the AAR represents the railroad industry before government bodies, including economic regulatory proceedings before the Surface Transportation Board ("STB" or "Board"). In particular, the AAR has participated in all of the STB proceedings addressing revenue adequacy standards and the annual cost of capital determinations

Aside from other responsibilities, I have conducted or directed a wide range of analyses and projects addressing regulatory, legislative and internal issues relevant to railroads Furthermore, I have testified before federal regulatory agencies, and have been an expert witness for a railroad A summary of my qualifications and experience appears at the end of this statement.

In this submission, I am responding to the Board's decision of March 5, 2009 (served March 6), instituting a proceeding to determine the railroad industry's 2008 cost of capital — Ex Parte No 558 (Sub-No 12), *Railroad Cost of Capital — 2008* ("Ex Parte 558 Decision"). In my statement, I calculate the cost of debt for the railroad industry using the procedures accepted in

previous STB proceedings I also calculate the cost of common equity using a simple average of the estimates produced using the following methods (1) the Capital Asset Pricing Model used by the Board in Ex Parte No 558 (Sub-No 11): and (2) the Morningstar/Ibbotson Multi-Stage Discounted Cash Flow Model as adopted by the Board in Ex Parte No. 664 (Sub-No. 1), *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, served January 28, 2009 Finally, I calculate the market value capital structure and the overall cost of capital using the procedures accepted in previous Cost of Capital proceedings. This statement presents the details for calculating the necessary components for the overall cost of capital calculation: the market value capital structure, the cost of debt, the cost of common equity capital using the Capital Asset Pricing Model, and the cost of preferred equity capital My statement is accompanied by the Verified Statement of Dr Bruce E. Stangle, Chairman, Analysis Group, Inc in which he presents the details underlying the calculation of the cost of common equity capital using the STB's Multi-Stage Discounted Cash Flow Model.

I conclude that the 2008 cost of capital for the railroad industry is 11 90 percent. This estimate is based on a current cost of debt of 6 57 percent, a cost of common equity capital of 13.35 percent, and market value weights for debt and common equity of 21 34 percent and 78.66 percent, respectively Because there were no preferred stock issues outstanding in 2008, the cost of preferred equity capital has not been calculated, and the market value weight for preferred equity capital is zero.

II. Determining the Cost of Capital

A. Defining the Cost of Capital

The cost of capital for a firm is the minimum rate of return on investment that the providers of capital require as a condition for making an investment in the firm In essence, it is the threshold rate of return on investment that makes investment in the firm attractive. The cost of capital necessarily incorporates long-term investor expectations for a company's performance Investment funds flow to companies where the expected returns, over the investors' investment horizons, are thought to at least equal the expected returns available from other investment opportunities, giving consideration to the relative (or commensurate) risk of investment. Similarly within a company, limited capital resources flow to projects where the expected returns are expected to be highest, giving consideration to the relative (or commensurate) risk of investment. Methods used to estimate the cost of capital therefore attempt to measure investor expectations For some types of capital, such as traded bonds, investor expectations can be readily observed. For other types of capital, such as common equity, modeling is necessary.

B. The Composite Railroad Approach

The STB has adopted a composite railroad approach to computing an industry-wide cost of capital. This approach relies upon data from a sample of railroads meeting criteria established by the Board in Ex Parte No 458, *Railroad Cost of Capital — 1984*, 1 I C C 2d 989, 1003–1004 (1985)

C. Selection of Railroads for Analysis

Under the criteria established by the Board for individual firm inclusion in the composite railroad sample, a company must meet certain criteria. (Ex Parte 558 Sub-No 12 Decision) Those criteria are:

- The company is a Class I line-haul railroad
- If the Class I railroad is controlled by another company, the controlling company is primarily a railroad company (at least 50 percent of its total assets are devoted to railroad operations), and it is not already included in the study frame.
- The company's bonds are rated at least BBB by Standard & Poor's and Baa by Moody's.
- The company's stock is listed on either the New York or the American Stock Exchange
- The company has paid dividends throughout the year (2008)

Table 1 (below) lists the AAR's evaluation of railroad companies that may meet the STB's criteria.

Table No. 1
Evaluation of Class I Railroads
Under Surface Transportation Board Selection Criteria
2008

Class I Railroad	Parent	Stock Symbol	Listed NYSE/ASE	Dividends Throughout 2008	Rail Assets Account For At Least 50% of Parent	Adequate Debt Rating
BNSF	Burlington Northern Santa Fe Corp	BNI	Yes	Yes	Yes	Yes
CSX	CSX Corporation	CSX	Yes	Yes	Yes	Yes
CNGT*	Canadian National Railway Co	CNI	Yes	—	Non-U S company	—
KCS	Kansas City Southern	KSU	Yes	No	Yes	No
NS	Norfolk Southern Corporation	NSC	Yes	Yes	Yes	Yes
SOO*	Canadian Pacific Railway Limited	CP	Yes	—	Non-U S company	—
UP	Union Pacific Corporation	UNP	Yes	Yes	Yes	Yes

* CNGT is Grand Trunk Corporation, and consists of most of the U.S. railroad operations of Canadian National Railway (CN) SOO is Soo Line Railroad, the western U S operations of Canadian Pacific Railway (CP) Following STB precedent, CN and Canadian Pacific were not included in the sample because both CN and CP are Canadian corporations – and the cost of capital proceeding is concerned with determining costs for U S railroads under STB jurisdiction

This year there are four railroad corporations or holding companies in the sample meeting the Board's criteria. Burlington Northern Santa Fe Corporation, CSX Corporation, Norfolk Southern Corporation, and Union Pacific Corporation These are the same railroads that were included in the 2007 sample. Consistent with past proceedings, the two Canadian railroads have been excluded from the sample.

Table 2 shows that, based on data for 2008, the four-firm composite accounts for 93.0 percent of the operating revenues and 89.2 percent of the assets of all Class I railroads As in prior years, this year's sample railroads account for a significant portion of both the revenues and assets of the Class I railroads, indicating that the group represents the industry well [1]

Table No. 2
Relative Size of the Railroad Composite Sample
Year 2008

Railroad	Revenue ($000)	Assets ($000)	Pct of Total Class I RR Revenue	Pct of Total Class I RR Assets
BNSF	$18,132,372	$35,702,439	29 6 %	26 0 %
CSX	10,219,153	24,185,322	16 7	17 6
NS	10,661,340	25,088,712	17.4	18.2
UP	17,934,844	37,650,022	29.3	27 4
Total	$56,947,709	$122,626,495	93 0	89 2
Total Class I	$61,242,606	$137,527,547	100 0 %	100 0 %

NOTE: Revenue and asset figures are from Annual Report Form R-1, submitted by Class I railroads to the STB at the end of March 2009 for the year 2008

D. Types of Railroad Capital

The total capital of a firm may include various forms of debt and two types of equity: common stock and preferred stock. Each of these three sources of capital has different expected rates of return (reflecting different levels of perceived risk), and the overall cost of capital is calculated as the weighted average of the costs of common equity, preferred equity, and debt based on their market values Different approaches are used to estimate the costs of each of the types of capital In this statement, approximately 97 percent of the cost of debt is calculated using bonds and similar instruments (including notes and debentures). The remaining three percent – in

[1] For 2007 (latest year available with total industry data), Class I railroads accounted for 93 2 percent of the entire freight railroad industry's freight revenue

the form of Equipment Trust Certificates and Conditional Sales Agreements – is calculated with a long-used model that utilizes market-determined yields for government debt, and the historical relationship between government debt and the type of railroad debt modeled The estimate of the cost of common equity is a simple average of the results from two estimation methods. One method, the details of which are shown in this statement, is calculated using the Capital Asset Pricing Model (CAPM) following the methodology prescribed by the Board in the 2007 Cost of Capital decision The other method, the details of which are shown in the statement of Dr Bruce E Stangle, is calculated using a Multi-Stage Discounted Cash Flow model following the methodology prescribed by the Board in its Ex Parte No 664 (Sub-No 1) decision served on January 28, 2009. The cost of preferred equity capital has not been calculated, since none of the representative companies had preferred stock outstanding at the end of 2008. Calculations for all three types of capital are based on data through 2008 The industry's overall cost of capital is computed as a weighted average of the two costs — debt and common equity — based upon the market value for each type of capital.

III. Debt Capital in 2008

The current cost of debt is determined from the current market-determined yields on all debt outstanding This approach is necessary, and in past Board Cost of Capital decisions[2] has been accepted as appropriate, because

(1) there is a lack of sufficient new issues from which to develop a representative current cost,

[2] Ex Parte Nos 415, 436, 452, 458, 464, 466, 473, 478, 486, 491, 506, 513, 518, 523, 523 (Sub-No 1), 558, 558 (Sub-No 1) 558 (Sub-No 2) 558 (Sub-No 3), 558 (Sub-No 4), 558 (Sub-No 5), 558 (Sub-No 6), 558 (Sub-No 7), 558 (Sub-No 8), 558 (Sub-No 9), 558 (Sub-No 10) 558 (Sub-No 11)

(2) the stated rate of interest/dividend payment to the investor is not always the same as the cost to the railroad. For example, when securities are issued, the total amount paid by investors is seldom received by the firm Administrative fees, such as compensation paid to investment bankers, reduce the proceeds to the firm The effect of this is to increase the cost of the securities to the firm;

(3) the maturity mix and the type of security (equipment trust certificates, conditional sales agreements, long-term debt) of new security issues may be different from the average of existing securities Because of the effect that length of maturity and type of security has on its current cost, the use of only new issues would not accurately measure the current cost; and

(4) the quantity and quality of existing debt has an impact on the yield of new issues

A. Bonds, Notes and Debentures

Yields and market values of the sample railroads' bonds, notes and debentures are obtained from bond prices and yields from Standard & Poor's *Bond XpressFeed* data base [3] As in previous Cost of Capital determinations, the calculations are based on *all* of the sample railroads' bonds, notes, and debentures that were publicly traded during the year The bonds that were publicly traded in 2008 represent 65 percent of the market value of all outstanding bonds that were issued by the sample railroads [4]

[3] Standard & Poor's (S&P) *Bond XpressFeed* provides financial and statistical data on approximately 6,200 corporate bonds, and is essentially an electronic version of the Standard & Poor's *Bond Guide*

[4] The only bonds not included in the *Bond XpressFeed* are bonds that are not publicly traded There is no practical way to obtain yields and prices for bonds which are privately held

1. Market Value of Bonds, Notes, and Debentures

The average market value for traded bonds, notes, and debentures is calculated using the methodology employed in previous Cost of Capital proceedings. For each of 61 traded bonds in 2008, an average price is calculated based on the simple average of monthly prices. The prices represent what the investor is willing to pay for the bond given its coupon rate and maturity date. The market value is the average market price (stated as a price per hundred dollars of principal) times the amount of debt outstanding[5] as of December 31, 2008. Where market prices are not available (i.e., for instruments that did not trade), the "face value" of the bond is assumed to be the price investors would pay. This assumption may slightly overstate the market value of some issues and understate the value of others, depending upon the relationship of the instruments' coupon rate and the current market rate. However, this possible variation is not likely to significantly affect the overall estimate of the cost of debt capital, since the differences are likely to be both small and offsetting, and since 65 percent of the book value of bonds is priced at market. Table 3 summarizes the results of the market value calculations for 2008. The market value for bonds, notes, and debentures that traded is $16.6 billion. The non-traded value has almost doubled, increasing from $4.6 to $9.0 billion. The railroads issued a significant amount of new debt in 2008, and none of that debt was listed as trading in the S&P *Bond XpressFeed* database.

[5] Securities that were issued during the year were prorated by the ratio of the number of months outstanding to the twelve-month year, as done in past proceedings.

Table No. 3
Bonds, Notes and Debentures
Average Market Value

Railroad Co.	Traded Value ($000)	Non-Traded Value ($000)	Total Value ($000)	Weight Based on Traded
BNI	$5,443,073	$1,655,590	$7,098,663	32 811 %
CSX	2,962,925	3,555,225	6,518,150	17 861
NSC	4,728,427	1,131,644	5,860,071	28 503
UNP	3,454,638	2,687,816	6,142,454	20 825
Total	$16,589,063	$9,030,275	$25,619,338	100.000 %
Prior Year	$17,505,104	$4,614,897	$22,120,001	
Change	-5 2%	95 7%	15 8%	

Appendix A lists details for each of the 61 bonds, notes, and debentures belonging to the composite railroad that traded in 2008 – and those instruments are summarized for each sample railroad in the front of the Appendix Book values for non-traded debt are also listed.

2. Current Cost of Bonds, Notes, and Debentures

Table 4 summarizes the yield or cost of each railroad's debt (bonds, notes, and debentures), which, when weighted by the market value of the traded debt (as shown in Table 3), determines the sample composite cost of bonds, notes and debentures. This weighted average is 6 525 percent

Table No. 4
Bonds, Notes and Debentures
Weighted Current Cost

Railroad Co.	Weight	Current Cost
BNI	32.811 %	6 411 %
CSX	17 861	6 988
NSC	28.503	6 574
UNP	20 825	6 239
Total	100 000	6.525 %

As noted earlier, the current cost for bonds, notes, and debentures is based on traded instruments issued by the sample railroads. Appendix A contains the average yield for each of

the 61 traded securities as found in Standard & Poor's *Bond XpressFeed* database. The average yield for each security is a simple average of the twelve month-end yields found in *Bond XpressFeed* The traded portion of Appendix A summarizes the yield or cost of each railroad's debt, which, when weighted by the market value of the traded debt, determines the sample composite cost of bonds, notes and debentures of 6.525 percent. The weights used in Table 4, as derived from the calculations in Table 3, are also based on the traded portion of Appendix A.

B. Equipment Trust Certificates

Equipment Trust Certificates (ETCs) are debt obligations that are secured by the particular equipment which is acquired with the instrument's proceeds. In the event of default, creditors may repossess and resell or lease the equipment to pay off the debt obligations. Because ETCs are not actively traded in secondary markets, it is necessary to determine their cost by examining the return on other debt securities that are actively traded.

An ETC is generally serially issued. As such, each year during its life an equal amount (typically 1/15th) of the original amount must be retired Consequently, an ETC may be thought of as a series of individual, annually-retiring bonds. In fact, when ETCs are issued, each of the maturities is sold independently from the others A serially issued debt instrument provides an investor with the ability to purchase only the maturities that interest him. To correctly compute the composite yield on a serially issued bond, the internal rate of return on the bond's principal and interest payments must be calculated

To compare ETCs to other debt instruments, the yields to maturity (as detailed in Appendix B) for government bills, notes, and bonds having the same range of maturities as current ETCs were obtained from Federal Reserve data The yield curve for these government securities (also in Appendix B) shows the relationship between the current costs, or yields to

maturity, and maturity dates for government bonds (which, unlike ETCs, are actively traded in secondary markets)

These yield data have been adjusted by the Federal Reserve Board to reflect constant maturities, such that the data accurately reflect the 2008 relationships between yields and maturities After determining the yields to maturity for government bonds of maturities similar to those of an ETC, those yields are adjusted to reflect the risk associated with the ETCs as compared to government bonds. In Cost of Capital filings prior to Ex Parte No 486, *Railroad Cost of Capital — 1989*, yield spreads between government bonds and ETCs were based on the publication *Analytical Record of Yields and Yield Spreads* prepared by the Bond Market Research Department of Salomon Brothers, Inc However, Salomon Brothers has not compiled yields and yield spreads for ETCs since 1988. Accordingly, identical to the methodology approved by the Board for application in Ex Parte No 486 and subsequent proceedings, yields and yield spreads used in this proceeding are based on new issues of ETCs by the sample railroads as compiled by the AAR [6] (Identical to the methodology used in Ex Parte 486 and prior proceedings, the Salomon Brothers compilation of yields and yield spreads on comparable industrial instruments were used as a proxy for ETCs of the same rating[7] where there were no new ETC issues of a particular rating)

[6] The only difference between the two methodologies is the specificity of the data base regarding the new issues Salomon Brothers, Inc included all new issues of ETCs (i e , airlines, railroads, etc) in computing yield spreads between government bonds and ETCs while the AAR had included only new issues of ETCs by the sample railroads in computing yield spreads between government bonds and ETCs Use of new issues of ETCs by the sample railroads is necessarily representative of the cost of ETCs because it is all-inclusive and reflects the actual cost of new ETC issuance In today's economic environment, ETCs for non-railroads could distort the spread

[7] ETCs are rated by Standard & Poor's, a firm which specializes in analyzing and evaluating securities according to the likelihood of a default by the railroad responsible to pay interest and to redeem the face value The highest available rating, AAA, indicates the least risk of default All other things being equal, investors will pay a higher price (or accept a lower yield) for a higher rated security than for a lower rated security

In recent years prior to 2007, no new ETCs were issued by the sample railroads. An alternative method of estimating yield spreads between government bonds and ETCs was therefore necessary for Cost of Capital determinations for the years 2001 through 2006. For this period, the AAR relied on historical yield spreads to determine the current cost of ETCs. Consequently, the yield spread between ETCs and government bonds was an average of the spreads (government vs. BBB ETCs) used in the 1998 through 2000 Cost of Capital proceedings. That spread was 114 basis points. In 2007, however, a new ETC was issued, and its interest rate spread above government bonds was 125 basis points. There were no new ETCs issued in 2008. Some may argue that the market changed significantly during the last quarter of 2008 (see the yield curve comparison in Appendix B), and the ETC spread has probably increased. However, we do not have enough information to update the 2007 spread. Because the 2007 ETC is the most current measure of the relationship between ETCs and government securities, its 125 basis point spread is used herein as the interest rate spread above government bonds.

The methodology used to determine the cost of ETC debt is the same as the method employed and approved in previous proceedings. Risk-adjusted yields provide the basis to value each ETC. Using formulae suggested by Standard Security Calculation Methods,[8] the market

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[8] The formulae used to value these bonds are standards of the security industry. They are:

For bonds with less than six months to maturity:

$$DP = \left[\frac{100 + C/2}{1 + DY/360}\right] - \left[C/2 \ \frac{(180 - D)}{180}\right]$$

For bonds with six months or longer to maturity:

$$DP = \left[\frac{100}{(1 - Y/2)_{EXP}(N - 1 + D/180)}\right] + \left[\sum_{K=1}^{N} \frac{C/2}{(1 - Y/2)_{EXP}(K - 1 + D/180)}\right] - \left[C/2\frac{(180 - D)}{180}\right]$$

value of each maturity comprising an ETC is determined. In effect, these formulae make it possible to determine the price investors would pay in 2008 for the contractual interest payments and price appreciation for holding the instrument It is the most accurate way to compute the current cost of ETCs to the firm for the defined period Computing the internal rate of return of the ETC prices and their associated cash flow streams establish the current cost for ETCs Because the yield curve for government securities is lower in 2008 than 2007 (especially shorter-term rates), and the consist of ETCs is mostly unchanged, the model shows lower rates compared to 2007 The weighted-average cost for all modeled Equipment Trust Certificates is shown in Table 5

Table No. 5
Summary of Equipment Trust Certificates Modeled for 2008
($000)

Railroad	Amount Outstanding Beg.	Ending	Average	Yield	Current Market Value	Current Interest Amount	No. ETC
BNSF	$224,414	$197,577	$210,996	4.368%	$227,997	$9,960	6
CSX	$190,200	$160,500	$175,350	4.205%	$192,631	$8,099	7
NS	$113,050	$96,300	$104,675	4 196%	$112,996	$4,741	3
UP	$227,163	$202,018	$214,590	4.796%	$233,118	$11 180	5
Total	$754,827	$656,395	$705,611	4 432%	$766,740	$33,980	21

Weighing each railroad's yield, by its current market value for modeled ETCs, results in a current cost of 4 432 percent A summary of each railroad's modeled ETC can be found in Appendix C, which includes a market value and a current yield In addition, Appendix C also lists ETCs that were not modeled ETCs can fail to be modeled for two reasons: (1) the ETC

Where DP = Dollar price of the bond
C = Coupon rate as a percent per year
D = Number of days from settlement date to coupon date
Y = Yield to maturity as a decimal per year
LXP = Raise the term on the left to the power indicated by the term on the right
N = Whole number of coupons payable plus 13
K = Compute for K values 1 to N and sum the results

instrument does not have all of the characteristics typical of an ETC, or (2) the ETC has a floating rate (instead of fixed) making its rate for a particular future year uncertain. The market value of all modeled ETCs is $766.7 million. Based on the assumption that the market value of non-modeled ETCs is the same as its book value, the market value of non-modeled ETCs is $81.0 million. The non-modeled ETC "market value" is listed in the Miscellaneous Debt category to comply with the Board's previous decisions.

C. Conditional Sales Agreements

Conditional Sales Agreements (CSAs) are another form of railroad financing that is treated by investors as debt securities, because their interest obligations are essentially the same as interest obligations on ETCs. Like ETCs, CSAs are not generally traded in secondary markets. Accordingly, as in prior proceedings, their current cost has been determined from current yields on government bonds in a similar manner to ETCs.

In Cost of Capital proceedings prior to Ex Parte No. 486, *Railroad Cost of Capital — 1989*, yield spreads for CSAs were estimated using the yield on new issues of CSAs and the Salomon Brothers, Inc. publication *Analytical Record of Yield and Yield Spreads* to determine the yields and yield spreads between government bonds, ETCs, and CSAs of similar rating.

However, in 2008, as in 1989–1996 and 1998–2007, there were no issues of CSAs by the sample railroads. Therefore, an alternative method of estimating yield spreads was required using historical yield spread data to determine the current cost of CSAs. Similarly, historical yield spread data are used in this proceeding to determine the current cost of CSAs. Specifically, the yield spread for CSAs in 2008 is based upon the yield-spread relationship between ETCs and CSAs issued in 1997, which was used in the 1997–2007 Cost of Capital proceedings. This

approach, which has been used and approved in prior proceedings, is the most practical and accurate method available for determining the cost of CSAs

In 1997, a new CSA was issued— the first since 1987. The yield spread of the new CSA over ETCs in 1997 was 32 basis points. Adding this yield spread to the current ETC yield spread over government bonds of 125 basis points provides a 2008 CSA yield spread of 157 basis points over government bonds. Using this methodology, the current cost of Conditional Sales Agreements and their market value is shown in Table 6. Although the table is shown in thousands, interest rate calculations are based on the full interest amount [$2,290,671] and full market value [$54,389,296].

Table No. 6
Summary of Conditional Sales Agreements Modeled for 2008
($000)

Railroad	Amount Outstanding Beg.	Ending	Average	Yield	Current Market Value	Current Interest Amount	No. CSA
BNSF	$0	$0	$0	–	$0	$0	0
CSX	56,852	45,481	51,167	4 212%	54,389	2,291	2
NS	0	0	0	–	0	0	0
UP	0	0	0	–	0	0	0
Total	$56,852	$45,481	$51,167	4 212%	$54,389	$2,291	2

Weighing each railroad's yield, by its current market value for modeled CSAs, results in a current cost of 4 212 percent. Similar to ETCs, the yields reflected in the model are lower because of the lower yield curve for government securities. A summary of each railroad's (only one railroad still has this type of debt instrument) modeled CSAs can be found in Appendix D, which includes a market value and a current yield In addition, Appendix D lists CSAs that were not modeled Like an ETC, CSAs can fail to be modeled for two reasons. (1) the CSA instrument does not have all of the characteristics typical of a CSA, or (2) the CSA has a floating

rate (instead of fixed), making its rate for a particular future year uncertain. The market value of all modeled CSAs is $54 4 million Based on the assumption that the market value of non-modeled CSAs is the same as its book value, the market value of non-modeled CSAs is $35 9 million The non-modeled CSA market value has been listed with the Miscellaneous Debt category to comply with the Board's earlier decisions

D. All Other Debt

Capital leases and miscellaneous debt such as commercial paper, demand deposits, and other instruments with reletively small amounts outstanding are listed as All Other Debt To comply with past decisions of the Board, non-modeled Equipment Trust Certificates and Conditional Sales Agreements have been listed in this category. Capital Leases account for over three-fourths of the All Other Debt category.

Capital leases are contracts between two parties and as such take many forms [9] Since capital leases are not traded in the marketplace, their current cost is not directly observable The lack of complete information with respect to leases necessitates that many assumptions be made to estimate their current cost and their values For market value purposes, capital leases are included at book value Given the large number of these leases and the significant differences among their terms, this is the only practical option available Because the cost of capital calculation assigns this debt a cost based on traded or modeled securities (bonds, notes. debentures, ETCs and CSAs) that typically have a lower cost, the cost used for capital leases will be understated somewhat.

Miscellaneous debt, such as commercial paper, demand deposits, and various instruments with extremely small amounts outstanding are also excluded from the current cost computations.

Non-modeled Equipment Trust Certificates and non-modeled Conditional Sales Agreements are also included in the Miscellaneous Debt category The book value (assumed market value) of capital leases, miscellaneous debt, non-modeled ETCs, and non-modeled CSAs is $3,365.3 million; as a percent of the total market value of debt of the composite railroad, it is 11.3 percent This treatment of All Other Debt is the same approach used in the previous cost of capital proceeding

E. Market Value of Debt

Table 7 summarizes the total market value for each debt category The total market value for traded and non-traded debt is $29,805.8 million. Bonds, Notes, and Debentures (Bonds) account for about 86 percent of the total market value. Approximately 64 percent of the Bonds' market value is determined by the results of trading throughout the year, while the remaining portion is based upon the book value of non-traded bonds

Table No. 7
Market Value of Debt ($000)

Type of Debt	Market Value	Percent of Total	Percent of Subtotal
Bonds, Notes & Debentures	$25,619,338	85 95 %	96 89 %
Equipment Trust Certificates	766,740	2.57	2.90
Conditional Sales Agreements	54,389	0.18	0 21
Subtotal	26,440,468	88 71	100 00 %
All Other Debt*	3,365,329	11.29	
Total	$29,805,797	100 00 %	

* Non-modeled ETCs and non-modeled CSAs are included in All Other Debt

Current costs can be determined for three of the four debt categories — Bonds, Equipment Trust Certificates, and Conditional Sales Agreements Therefore, the weighted average cost of debt is based upon these three (of the four) debt categories (see subtotal column). The total

[9] See generally 49 C F R 1201, 2–20 for definitions

market value of debt, used to determine the weight for debt in the overall cost of capital calculation, includes all four categories The market value of debt, including traded and non-traded debt, is described in more detail in Appendix E

F. Flotation Costs for Debt Capital

The cost of issuing new debt generally has two portions. First, when new debt is issued by a negotiated offering or a competitive bid, the issuing firm pays a fee to the investment banking firm or firms handling the offer. These fees cover the banker's administrative costs in handling the sale and profits. Second, the issuer incurs expenses such as legal, accounting, and printing Those types of expenses are quantified in the Securities and Exchange Commission's Form 424(b)(5), as are the investment banker's fee and other details of new debt offerings. Flotation costs generally vary by type of security. For ETCs and CSAs, the fees are extremely small, but costs increase as the administrative burden and underwriting risk increase (i.e , in order of increasing cost — ETCs and CSAs, bonds and notes, convertible bonds, and preferred stock and common stock) As discussed below, flotation costs directly reduce the gross proceeds available to the issuing firm.

An example helps to illustrate how flotation costs permanently increase the cost of debt capital to the railroad If a railroad sells a 10-year bond with an annual coupon of 15 percent and investors are willing to pay S98 for each $100 in face value, the effective yield on the bond is 15 40 percent Because the investment banker requires compensation (flotation costs) for his work, the railroad does not receive the full S98 from the investors In addition, the railroad will have its own internal costs such as legal and accounting. If flotation costs reduce the net proceeds to say $96, the effective cost to the railroad over the life of the bond is 15 82 percent. Therefore, flotation costs have increased the cost of debt from 15 40 to 15 82, or by 42 basis points. Proper

accounting treatment requires the $4 per $100 ($100 - $96) to be amortized on a straight line basis over the life of the bond In addition, the Uniform System of Accounts requires the annual amortization to be charged directly to Account No 548, Amortization of Discount on Funded Debt, a fixed charge item This results in fixed charges for the year totaling $15.40 ($15.00 coupon payment + amortization of $0.20 discount + $0.20 flotation costs) It is important to note that these flotation costs are not recovered through operating costs but are fixed charges each year during the life of the bond Also, it is evident that in order to reflect the total current cost of debt, flotation costs must be included

Any firm requires the opportunity to cover flotation costs before it will have an incentive to make future capital expenditures. Before creditors will lend their funds, they must be assured that the railroad will have the opportunity to earn returns sufficient to cover all costs

In STB Ex Parte No 558 (Sub-No 11), the Board stated that it "would welcome a better and more transparent calculation of flotation costs in future proceedings " Therefore, I have calculated flotation costs for bonds using data available from electronic filings with the Securities and Exchange Commission (SEC), and these filings are publicly available [10] The filing type is "424B5", and the SEC's description is "Prospectus Rule 424(b)(5)" In addition to standard bond information such as coupon and maturity date, these filings also provide the price to investors, underwriter's fee, and railroad expenses excluding the underwriter's fee Using a method similar to the STB method used in its Ex Parte No. 558 (Sub-No 11) decision served September 26, 2008, I have calculated a yield based on the price to investors and a yield that also included flotation costs The difference between the two yields is the flotation cost expressed in

[10] The SEC's EDGAR (Electronic Data Gathering, Analysis and Retrieval) system is available on the internet at the following address http //www sec gov/edgar shtml

percentage points. For 2008, seven new issues were reported in six (one filing reported two new issues) filings Information for an eighth new offering was provided directly from the railroad A simple average of the eight flotation costs is 0 110 percentage points Page 1 of Appendix F contains a table with source data and calculations. Pages 2 and 3 of the same appendix contain, as an example, the pages from the SEC filing that were used as a source for the first bond. The source filings (and the information supplied by one railroad) for the remaining bonds have been included in the work papers. As comparisons, the STB used 0 14 percentage points in its decision for the 2007 cost of capital, and that same methodology produces 0 145 percentage points for 2008 [11] I believe the group of eight new railroad debt issues provides the best source to determine flotation costs for 2008, and I have therefore used 0.110 percentage points for the flotation costs for bonds

The Securities and Exchange Commission (SEC) conducted a study of flotation costs using railroad ETC data for the years 1951, 1952 and 1955.[12] In that study, the SEC determined that ETC flotation costs averaged 0.89 percent of gross proceeds For CSAs, neither recent nor historical data are publicly available, so the ETC figure is used.

Table 8 below calculates flotation costs for ETCs and CSAs using the flotation percent of gross proceeds discussed above Current average yields on railroad ETCs and CSAs are assumed to be equal to the yield resulting from the price to investors for a new issue Coupons are assumed to be paid twice per year. The duration for new ETCs and CSAs is assumed to be 15

[11] An SEC study (*Cost of Flotation of Registered Securities 1971-1972*, Securities and Exchange Commission, December 1974) of flotation costs provided data for 659 debt issues It concluded that flotation costs as a percent of gross proceeds are 1 59 percent Assuming the current bond yield is 6 525%, a new issue will pay twice per year for 20 years, and the SEC's 1 59 percent accounts for fees and issuer expenses one can calculate an effective yield of 6 670 percent The difference between the two yields is the flotation cost on a percentage point basis

[12] *Cost of Flotation of Corporate Securities 1951-1955* Securities and Exchange Commission June 1957

years Given the input data, effective yields can be calculated, and the difference between the yields excluding flotation costs and the yields including flotation costs are the flotation costs measured in percentage points The results are flotation costs for ETCs of 0.082 percentage points. The figure for CSAs is very similar. at 0 081 percentage points This method was used by the Board in its 2007 Cost of Capital decision. and the 2008 figures are close to the STB's 0 09 percentage points for 2007.

Table No. 8
Flotation Costs for
Equipment Trust Certificates and
Conditional Sales Agreements

Given	**ETC**	**CSA**
Flotation Costs as Pct of Gross Proceeds	0 890%	0 890%
Avg Railroad Yields (Table 5 & 6)	4 432%	4 212%
Duration of New Instrument (Years)	15	15
Calculated		
Price After Flotation Costs	$99 11	$99 11
Effective Yield Including Flotation Costs	4 514%	4.293%
Difference Between Yields With and Without Flotation Costs =		
Flotation Cost as Percentage Points	**0.082%**	**0.081%**

To compute the overall effect of flotation cost on debt. the market value weight of the debt outstanding is multiplied by the respective flotation cost The weights for each type of debt are based on market values for debt (excluding All Other Debt). as found in Appendix E's Percent of Subtotal column. All Other Debt is excluded from the weight calculation, since a current cost of debt for that category has not been determined. As shown in Table 9, flotation costs increase the cost of debt by 0 109 percentage points. This result is slightly lower than the Board's 0.14 percent calculated in its 2007 Cost of Capital decision

Table No. 9
Flotation Costs For Debt

Type of Debt	Market Weight	Floatation Cost
Bonds, Notes & Debentures	96 89%	0.110%
Equipment Trust Certificates	2.90%	0.082%
Conditional Sales Agreements	0 21%	0.081%
Total	100.00%	0.109%

G. Conclusion as to the Cost of Debt Capital

To determine the overall composite current cost of debt, the current cost of each of three categories of debt (Bonds, ETCs and CSAs) is multiplied by its market value proportion Market values are properly used in this connection, because they represent the amounts on which the current cost must be paid Table 10 shows the results of this calculation

Table No. 10
Composite Current Cost Of Debt

Type of Debt	Market Weight	Current Cost
Bonds, Notes & Debentures	96.89%	6 525%
Equipment Trust Certificates	2 90%	4 432%
Conditional Sales Agreements	0 21%	4 212%
Subtotal	100 00%	6 459%
Flotation Costs		0.109%
Weighted Cost of Debt		6.568%
Weighted Cost of Debt (Rounded)		**6.57%**

The current weighted cost of debt before flotation costs is 6.459 percent. The addition of flotation costs results in a rounded cost of debt of 6.57 percent Details for the calculation of the overall cost of debt are provided in Appendix G using weights calculated in Appendix E

III. Common Equity Capital In 2008

A. The Market Value of Common Equity Capital

The market value of common equity is based on stock prices and shares outstanding for 2008 Table 11 below summarizes the market value calculation. The Weight column, which is not used directly in our calculation, is provided as additional information

Table No. 11
Average Market Value
For Common Equity in 2008

Railroad Co.	Value ($000)	Weight %
BNI	$31,720,647 8	28 88 %
CSX	21,425,174 4	19 50
NSC	21,788,032 6	19.83
UNP	34,916,670.9	31.79
Total	$109.850 525 8	100.00 %
Prior Year	$99,126,191 0	
Change	10 8%	

Details of the calculation are presented in Appendix H Weekly market values were calculated for each railroad using shares outstanding data from railroad 10-Q and 10-K reports multiplied by stock prices at the close of each week in 2008 [13] The 52-week average market capitalization of the composite railroad (the four railroads that comprise the composite sample), listed on page 5 of Appendix H, is $109.850 5 million Weekly numbers for the last quarter of 2008 were well below the average for 2007, but results for the first three quarters of 2008 caused the average for 2008 to be 10.8 percent higher than the previous year

[13] The 10-Q and 10-K reports are filed with the U S Securities and Exchange Commission (SEC) and are available from railroad web sites or the SEC web site

B. The Capital Asset Pricing Model (CAPM)

The cost of equity is a measure of investor expectations, including the opportunity cost of investing in a share of a firm's stock, i e., the expected rate of return that investors require on the market value (purchase price) of the stock in light of alternative investment opportunities of comparable risk. Because investor expectations are not directly observable, analysts have developed methods of inferring the cost of equity from available financial data. There are several methods available to estimate the cost of equity. Two of these methods, the Capital Asset Pricing Model (CAPM) and a Multi-Stage Discounted Cash Flow Model (MSDCF) are used in this statement to compute an estimate for the cost of equity — in accordance with STB Ex Parte No. 558 (Sub No 12) The CAPM is discussed herein. (The MSDCF methodology is described in *the attached verified statement of Dr. Bruce E Stangle, Chairman, Analysis Group Inc., and the* result discussed in my next section)

The theory underlying the CAPM is that an investor seeks a risk-free return plus a premium that is dependent upon risk. In formulaic terms, the cost of equity as estimated by the CAPM may be expressed as:

K = RF – Beta (MRP)

Where K = the firm's cost of equity,
RF = the risk-free rate,
MRP = the market's risk premium, and
Beta = the coefficient of systematic, non-diversifiable risk of the stock

Therefore, each firm's cost of equity depends on the non-diversifiable risk of its common stock, represented in the model as Beta. The risk-free rate (RF) is typically represented by the rate of a U.S Government (Treasury) instrument The market risk premium (MRP) is the expected future difference between returns for the overall stock market and risk-free returns.

That expected difference is typically estimated using historical differences. Beta is the coefficient of systematic, non-diversifiable risk of the stock, which depends on its volatility and its correlation with the overall stock market The Beta for the overall stock market is 1 0 Firms with higher risk will have a Beta above 1.0, while firms with lower risk will have a Beta below 1.0 As with the market risk premium, Betas are also typically estimated using historical relationships. The methodology used for the CAPM calculation — including details for using certain inputs — follows the methodology prescribed by the STB in the 2007 Cost of Capital decision [14]

1. Risk-Free Rate (RF)

In its decisions in Ex Parte 558 (Sub No. 10) and Ex Parte 558 (Sub No 11). the Board specified a risk-free rate based on an average yield to maturity for a 20-year U.S. Treasury Bond The average yield to maturity for a 20-year U.S Treasury Bond, which is available from the Federal Reserve web site, is used [15] Table 12 (below) lists a 15-year history of this bond.

[14] Ex Parte No 558 (Sub-No 11). Railroad Cost of Capital – 2007, served September 26. 2008

[15] Federal Reserve's web site is http //www federalreserve gov/releases/H15/data htm Select Treasury Constant Maturities Nominal 20-year. Annual

Table No. 12
20-Year U.S. Treasury Bonds 1994 - 2008

Year	Average Annual Rate
1994	7 49 %
1995	6 95
1996	6 83
1997	6 69
1998	5 72
1999	6.20
2000	6.23
2001	5 63
2002	5 43
2003	4 96
2004	5 04
2005	4 64
2006	5 00
2007	4 91
2008	4 36

Source Federal Reserve

As can be seen in Table 12, the 4.36 percent average 2008 rate for 20-Year U S Treasury Bonds is the lowest figure in the fifteen-year period. Furthermore, based on the observation of interest rates listed in the Economic Report of the President,[16] many long-term interest rates are near their lowest level since the mid-1960s

Using the average yield to maturity in 2008 for a 20-year U S Treasury Bond, as directed in STB Ex Parte No 558 (Sub No. 10), the CAPM's risk-free rate is 4.36 percent

[16] *Economic Report of the President 2009*, TABLE B–73 —*Bond yields and interest rates 1929–2007*

2. Market Risk Premium (MRP)

In the STB Ex Parte No. 558 (Sub No. 10) decision served January 17, 2008, the STB required that the market risk premium (a.k.a equity risk premium) calculation begin with year 1926, which is a standard approach. The Standard & Poor's 500 Index is to be used as the representative of the market — also a standard approach. The STB's decision also stated that the "data are also available from a variety of commercial vendors, including Ibbotson."

Since the Ibbotson Equity Risk Premium is well regarded and widely accepted, the 2008 market risk premium from the *Stocks, Bonds, Bills, and Inflation* (a.k.a. SBBI) *2009 Yearbook Valuation Edition* published by Morningstar is used.[17] This source was accepted in the STB's 2006 and 2007 decisions. Page 56 of the 2009 SBBI lists the Long-Horizon Equity Risk Premium that is based on the Standard & Poor's 500 as 6.47 percent, which is used as the rate for the CAPM's market risk premium.

3. Beta

The STB Ex Parte No. 664 decision requires parties to calculate the CAPM's Beta using a portfolio of weekly, merger-adjusted stock returns for the prior five years in the following equation:

$$R - SRRF = Alpha + Beta\ (RM - SRRF) - E$$

Where:

R	=	merger-adjusted stock returns for the portfolio of railroads;[18]
SSRF	=	short-run risk-free rate represented by 3-mo. U.S. Treasury Bills,
Alpha	=	constant term;
Beta	=	coefficient of systematic, non-diversifiable risk;
RM	=	return for the market, represented by the S&P 500; and
E	=	random error term.

[17] Ibbotson Associates is a wholly-owned subsidiary of Morningstar, Inc

[18] Railroads must meet the screening criteria set forth in *Railroad Cost of Capital – 1984*

In its Railroad Cost of Capital – 2006 decision, the STB clarified its Beta calculation methodology The STB noted that "[t]he proper way to arrive at the weekly portfolio change is to calculate the weekly stock percentage change for each firm, weighted by that firm's share of the industry as a whole " The STB also determined that the Standard & Poor's 500 Price Index, which is publicly available, should be used as a proxy for the Standard & Poor's 500 Total Return Index, unless the Total Return Index is made available to the public.

Using the STB instructions, the value for Beta can be solved for using a linear regression The railroad portfolio return less the short-term risk free rate is the dependent variable, while the market return less the risk free rate is the independent variable. The regression's random error term is unknown, the intercept is the Alpha, and the coefficient for the explanatory variable is the Beta

The raw regression data set used in the AAR calculation is derived from publicly available data from web sites on the internet (for further information, see the work papers) The raw data consists of weekly observations from the first week of 2004 through the last week of 2008. The data set label variables identify the first day of trading during the week (typically Monday), but the close prices were for the last day of trading during the week. Week 1 in the regression data set is the week beginning Monday, January 5, 2004 The prior week, which began on Monday, December 29, 2003, had only one day where stock traded (January 2) during 2004 – so it was not included in the regression data set The last week in the data set is week 261, and it began on Monday, December 29, 2008 Stock traded during 2008 for 3 of the 4 trading days in this week (no trading on January 1), so it is included as part of 2008.

Three categories of data are necessary for the raw regression data set. First, weekly stock prices for BNI, CSX, NSC, and UNP[19] are downloaded from a free web site.[20] Prices adjusted for dividends and splits are used as the dependent variable, while prices that are only adjusted for splits are used for weighting.[21] The price index values for Standard & Poor's 500 Price Index were also downloaded from the same web site. Second, stock shares outstanding, and an effective date, were gathered from each railroad's 10-Q and 10-K reports. The shares outstanding data were adjusted for stock splits if necessary. For each railroad, a shares outstanding value is assigned to each week based upon the latest available 10-Q or 10-K submissions by that railroad to the Securities and Exchange Commission.[22] The final piece of raw data is the rate for 3-Month U.S. Treasury Bills. These securities are also known as 13-Week Treasury Bills or 90-Day Treasury Bills. The Treasury Bill rates are acquired from the Federal Reserve web site.

SAS[23] statistical software is used to run the regression analysis to calculate Beta, and to prepare the regression data set from the raw data. Prior to running the regression, the weekly stock percentage change for each railroad is calculated and weighted by that railroad's share of

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[19] The Burlington Northern Santa Fe Corporation has a stock symbol of BNI, CSX Corporation is CSX, Norfolk Southern Corporation is NSC, and Union Pacific Corporation is UNP.

[20] The Yahoo! Finance web site was used. Go to http://finance.yahoo.com/q/hp?s=BNI to start with the first railroad (BNI). Select weekly data and a date range.

[21] The dividend-adjusted values may differ for a given week if the data are down-loaded at different times during the year, especially if dividends have been paid during the interim time. For example using the week beginning December 29, 2008. BNI close price is always $78.45, but the adjusted close was 78.45 for a January 7, 2009 download – and it was $77.86 on a March 18, 2009 download. The difference appears to affect the fourth digit after the decimal for Beta calculations.

[22] For example, BNSF reported 371,220,104 shares outstanding as of October 24, 2003 in its third quarter 2003 10-Q report, and 372,258,486 shares outstanding as of February 2, 2004 in its 2003 10-K report. Therefore, the first five weeks were assigned 371,220,104 shares outstanding. Because week 6 (began February 9) was the first full week after February 2, it was assigned 372,258,486 shares outstanding. This methodology is consistent with the STB's Ex Parte No. 558 (Sub-No. 11) decision.

[23] SAS Institute Inc., Cary, NC.

the industry as a whole to create a composite railroad return.[24] Weekly returns are also calculated for the Standard & Poor's 500 Price Index (the proxy for the market as a whole) Each week's three-month Treasury Bill rate, which is the measure employed for the short-run risk-free rate, is restated from an annual to a weekly rate to make it comparable to the weekly returns The weekly Treasury Bill rates are then deducted from the composite railroad portfolio returns and market returns as was done in the two previous cost of capital submissions. The resulting regression data set has 260 observations (weeks 2 through 261). since the first week of the raw data set is used only to calculate a return for week 2

The SAS General Linear Model procedure is used to calculate the regression. with composite railroad returns less the short-run risk-free rate as the dependent variable and the market returns less the short-run risk-free rate as the independent variable. As specified by the STB decisions, the regression includes an intercept. Appendix I contains a summary of the regression, which resulted in a Beta estimate of 0 9338.[25] A second calculation, using spreadsheet software has the same result.

The 2008 Beta is higher than the 0.8604 calculated by the STB for 2006, but lower than 2007's 1 1027. We are not surprised that the 2008 Beta is higher than the 2006 figure that included some weeks from the "Tech Stock Bubble", but we did not expect the 2008 figure to fall below 1.0. Our early Fall calculation, which used 247 observations through the week that begins September 29, 2008, resulted in a Beta of 1.2143. A recent calculation that adds observations from January through the end of March 2009 to the data set results in a Beta that is 1.0074.

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[24] Since the weight needs to be the weight at the beginning of the week instead of the end of the week. data from the end of the previous period is used to represent the beginning of the current period

[25] An additional regression using a data set with data downloaded in late March resulted in a Beta of 0 9339

causing us to believe that the 0.9338 Beta for 2008 is an aberration that will probably have a higher value in next year's cost of capital calculation.

We have evaluated our Beta calculations by (1) comparing it to previous years and the expected direction of change, and (2) comparing the results of two independent calculations using data sets created independently. As discussed earlier, the 2008 Beta is lower than expected, but higher than the 2006 Beta, as expected. The resulting value of 0.9338 for Beta, as calculated in our regression, is used as an input to the Capital Asset Pricing Model

A review of the CAPM is as follows.

K = RF + Beta (MRP)

Where K = the cost of equity for the portfolio of railroads,
RF = the risk-free rate,
MRP = the market's risk premium, and
Beta = coefficient of systematic, non-diversifiable risk

Our CAPM used the methodology specified by the STB in Ex Parte Nos 558 (Sub-No 11) Table 13 is a summary of our CAPM cost of common equity calculation, which resulted in an average 2008 cost of equity estimate for the composite railroad of 10 40 percent

Table No. 13
Cost of of Common Equity
Using STB's Capital Asset Pricing Model

Inputs to Model		
Risk-Free Rate	4.36 %	From Table No 12
Market Risk Premium	6 47 %	From SBBI (see text)
Beta	0 9338	From Appendix I
Calculation		
Risk-Free Rate	4 36 %	Given
Plus Beta Adjusted Risk Premium	6 04 %	Beta x Mkt Risk Prem
CAPM Cost of Equity	10.40 %	Risk-Free Rate + Prem

C. The Multi-Stage Discounted Cash Flow Model

As stated earlier, there are several methods available to estimate the cost of equity The Multi-Stage Discounted Cash Flow Model (MSDCF) is another model available Using this model, the cost of equity is the discount rate that equates a firm's market value to the present value of the expected stream of free cash flow that is potentially available for distribution to equity investors. The multiple stage portion of the model accounts for the assumption that the firm will not experience a constant growth rate throughout its life The STB, in Ex Parte No. 664 (Sub No 1), adopted the Morningstar/Ibbotson MSDCF model to use for estimating the cost of common equity capital [26] The cost of common equity calculations using this three-stage model are presented in the separate, accompanying Verified Statement of Dr Bruce E Stangle, Chairman, Analysis Group Inc Dr Stangle replicated the Board's Morningstar/Ibbotson MSDCF model, and calculated a cost of equity of 16 29 percent I have examined Dr. Stangle's calculations and methods and concur in his findings. and I have utilized his Morningstar/Ibbotson MSDCF cost of equity estimate as part of my calculation of the 2008 cost of equity capital

D. Conclusion as to the Cost of Common Equity Capital

In the STB's Ex Parte No 558 (Sub-No. 12) decision served March 6, 2009, the Board specified that it will use a simple average of the estimates produced by the CAPM adopted in STB Ex Parte No. 664 and the Morningstar/Ibbotson Multi-Stage DCF Model specified in STB Ex Parte 664 (Sub No. 1) Table 14 contains the cost of equity estimated by each model, and a simple average of the estimates. The cost of equity for 2008 is 13.35 percent, and this is an

[26] The Morningstar/Ibbotson MSDCF model adopted by the Board in Ex Parte No 664 (Sub-No 1) is a modified version that includes only the railroads that pass the screening criteria set forth in Railroad Cost of Capital – 1984, 1 I C C 2d 989 (1985). for inclusion in the sample of railroads used for the annual cost of capital determination See Ex Parte No 664 (Sub-No 1), *Use of a Multi-Stage Discounted Cash Flow Model in Determining the Railroad Industry's Cost of Capital*, served January 28. 2009

increase of 0 67 percentage points from the 2007 figure that was based solely on the CAPM The 13 35 figure is also very close to the 13 40% cost of equity testified by Dr Stangle to be the average for 2007 if the CAPM and MSDCF were averaged.[27]

Table No. 14
Cost of of Common Equity Capital

Model		
Capital Asset Pricing Model	10 40 %	From Table No 13
Multi-Stage Discounted Cash Flow	16 29	From Stangle V S
Cost of Common Equity	13 35 %	Average

V. Preferred Equity Capital in 2008

Like 2003 through 2007, no preferred stock issues were outstanding at the end of 2008 for the railroad companies comprising the railroad composite sample. The Class I railroad Kansas City Southern has preferred stock outstanding, but it does not meet the selection criteria for the composite railroad (see Table 1) because it does not pay dividends on its common stock – and does not have a sufficient rating on its debt. Therefore, no cost for preferred equity capital has been calculated, and the market value for preferred equity capital is zero

VI. The Overall Cost of Capital In 2008

A. Determination of Market Value Weights

As shown in Appendix E and Appendix H, the market value of debt and common equity are $29,805.8 million and $109,850.5 million, respectively. As mentioned in Section V, Preferred Equity Capital in 2008, the sample railroad companies had no preferred stock issues

[27] See Exhibit 3 on page 7 of Dr Bruce E Stangle's statement in Comments of the Association of American Railroads in STB Ex Parte No 646 (Sub-No 1), submitted April 14, 2008

outstanding at the end of 2008. Therefore, preferred equity capital is given no weight in the overall cost of capital, and no cost is calculated The figure for the market value of debt includes market values of bonds, notes, debentures, equipment trust certificates, and conditional sales agreements Other debt and capitalized leases are included at their book value, because market values are difficult to determine (in some instances book values correspond to market values) and because these other instruments are a minimal portion of all railroad debt Based on these calculations, the market value weights for debt and common equity are 21.34 percent and 78.66 percent, respectively. These figures are not far from the values found by the STB for 2007, which are 20.68 percent for debt and 79 32 percent for common equity

B. The Overall Cost of Capital

Multiplying the cost of debt, the cost of common equity capital, and the cost of preferred equity capital, by their respective market value proportions, results in a 2008 overall cost of capital of 11.90 percent, as shown in Table 15 This is higher than the 11 33 percent cost of capital decided for 2007 that had lower costs for both debt and equity. However, if the 2007 cost of capital determination had used a cost of equity based on both the CAPM and the MS-DCF, the overall cost of capital for that period would have *also* been 11 90 percent

Table No. 15
Weighted Current Cost of Capital

	Reference	Market Value (mil)	Capital Structure Weight	Current Cost
Debt	Appendix E, F	$29,805 8	21 34 %	6 57 %
Common Equity	Appendix G, Table 14	109,850.5	78 66	13 35
Preferred Equity	Text	0 0	0.00	n/a
Total		$139,656 3	100 00 %	
Weighted Current Cost of Capital				**11.90 %**

VII. Qualifications of John T. Gray

My name is John T Gray. I am Senior Vice President — Policy and Economics for the Association of American Railroads (AAR). with offices located at 50 F Street, N.W., Washington, D.C. 20001. Among other responsibilities, my duties include the collection, analysis, and presentation of economic data related to railroads and their economic environment One of my principal duties is conducting and supervising economic, financial, statistical and cost studies dealing with various aspects of the rail industry.

Prior to joining the AAR, I worked for Union Pacific Railroad where my most recent position was as Executive Director, responsible for the commercial relationship with other transportation carriers and ports, and for strategic policy analysis on issues involving regulatory proposals, legislation and potential litigation. I have also held marketing, planning, and operating positions with other railroads including the Southern Pacific, the Burlington Northern and the Alaska Railroad. I began my railroad career at Atchison, Topeka, and Santa Fe in their cost analysis organization. Additionally, I have also worked for ARCO Alaska.

At Southern Pacific, I was responsible for network planning. analysis, and management, as well as the company's cost analysis organization. I provided testimony on behalf of Southern Pacific regarding the economic impact to the company of the proposed combination of the Chicago and North Western Transportation Company with Union Pacific Railroad. Later, I provided extensive testimony on the economic position of Southern Pacific during the STB's review of the merger application for Union Pacific and Southern Pacific

I hold both a Bachelors and Masters degree in Civil Engineering from Tulane University and did post-graduate work in mathematical modeling of transportation networks and rail cost systems at Northwestern University. I have also served on the faculty at the University of Alaska.

where my work included network modeling and research concerning the interrelationship of transportation and economic development

VERIFICATION

WASHINGTON, D.C.)
) SS.

I, John T. Gray, being duly sworn, state that I have read the foregoing statement, that I know its contents, and that those contents are true as stated.

JOHN T. GRAY

Subscribed and sworn to before me this 20th day of April 2009.

Notary Public

My Commission expires:

Pamela C. Nwosu
Notary Public, District of Columbia
My Commission Expires 2/14/2012

Appendix A
Bonds, Notes and Debentures

Burlington Northern Santa Fe Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Traded						
1	Note	MTN00005	1	12189QAB6	6 530%	07/15/37	$170,100	170,100	96 023	$163,334	6 870%	$11,221
2	Note	MTN00014	2	12189TAT1	6 750%	07/15/11	$400,000	400,000	104 463	$417,852	5 190%	$21,687
3	Note	MTN00015	3	12189TAU8	5 900%	07/01/12	$300,000	300,000	102 263	$306,790	5 310%	$16,291
4	Note	MTN00016	4	12189TAV6	4 300%	07/01/13	$250,000	250,000	94 675	$236,687	5.580%	$13,207
5	Note	MTN00017	5	12189TAW4	4 875%	01/01/15	$250,000	250,000	95 784	$239,461	5 680%	$13,601
6	Debenture	DEB00004	6	12189TAA2	7 000%	12/15/25	$350,000	350,000	101 466	$355,130	6 870%	$24,397
7	Debenture	DEB00005	7	12189TAB0	6 875%	02/15/16	$175,000	175,000	105 556	$184,722	5 970%	$11,028
8	Debenture	DEB00006	8	12189TAD6	7 290%	06/01/36	$199,000	199,000	104 254	$207,466	6 960%	$14,440
9	Debenture	DEB00007	9	12189TAF1	7 250%	08/01/97	$200 000	200,000	102 013	$204,026	7 140%	$14,567
10	Debenture	DEB00008	10	12189TAG9	6 875%	12/01/27	$200,000	200,000	99 835	$199,671	6 910%	$13,797
11	Debenture	DEB00009	11	12189TAJ3	6 700%	08/01/28	$200,000	200,000	98 074	$196,147	6 900%	$13,534
12	Debenture	DEB00010	12	12189TAN4	6 750%	03/15/29	$200,000	200,000	98 669	$197,339	6 890%	$13,597
13	Debenture	DEB00011	13	12189TAK0	7 082%	05/13/29	$200,000	200,000	101 443	$202,887	6 970%	$14,141
14	Debenture	DEB00012	14	12189TAQ7	8 125%	04/15/20	$200,000	200,000	112 727	$225,455	6 590%	$14,857
15	Debenture	DEB00013	15	12189TAR5	7 950%	08/15/30	$275,000	275,000	111 085	$305,483	6 990%	$21,353
16	Debenture	DEB00014	16	12189TAX2	6 200%	08/15/36	$300,000	300,000	92 773	$278,320	6 800%	$18,926
17	Debenture	DEB00015	17	12189TAY0	5 650%	05/01/17	$650,000	650,000	97 297	$632,430	6 080%	$38,452
18	Debenture	DEB00016	18	12189TAZ7	6 150%	05/01/37	$650,000	650,000	92 300	$599,952	6 780%	$40,677
19	Debenture	DBN00001	19	121897WQ1	8 750%	02/25/22	$200,000	200,000	119 279	$238,559	6 620%	$15,793
20	Mortgage	MTB00002 Ser K	20	121899CD8	6 550%	01/01/20	$3,978	3,978	104 000	$4,137	6 060%	$251
21	Mortgage	MTB00003 Ser L	21	121899CC0	3 800%	01/01/20	$6,195	6,195	79 595	$4,931	6 340%	$313
22	Mortgage	MTB00004 Ser M	22	121899CH9	3 200%	01/01/45	$12,998	12,998	48 440	$6,296	7 260%	$457
23	Mortgage	MTB00005 Ser N	23	121899CF3	8 150%	01/01/20	$2,506	2,506	124 083	$3,110	5 310%	$165
24	Mortgage	MTB00006 Ser O	24	121899CE6	6 550%	01/01/20	$15,378	15,378	99 800	$15,347	6 570%	$1,008
25	Mortgage	MTB00010 NP GLB	25	665585JP1	3 000%	01/01/47	$34,479	34,479	50 875	$17,541	6 770%	$1,188
26												
27												
28												
29												
30												
Total							**$5,444,634**	**$5,444,634**		**$5,443,073**	**6.411%**	**$348,948**

Burlington Northern Santa Fe Corporation
December 31, 2008

	Type	Description	No. CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
					Not Traded						
1	Note	MTN00012		7 125%	12/15/10	300,000	300,000	100 000	300,000		
2	Note	WAS00001 BNAI Washgtn		No Int	10/01/11	104	104	100 000	104		
3	Note	MTN00018 **New 11-26**		7 000%	02/01/14	500,000	41,667	100 000	41,667		
4	Debenture	DEB00017 **New 3-15**		5 750%	03/15/18	650,000	514,583	100 000	514,583		
5	Jr Sub Notes	Hybrid Debt Securities		6 613%	12/15/55	500,000	500,000	100 000	500,000		
6	Mortgage	GOB00001 Topeka GOB		10 320%	01/01/14	15,422	15,422	100 000	15,422		
7	Mortgage	MTB00007 Ser P	26 121899CG1	8 150%	01/01/20	5,566	5,566	100 000	5,566		
8	Financing Oblig	Joliet Arsenal		6 967%	08/01/22	138,231	138,231	100 000	138,231		
9	Financing Oblig	Amory Sale		No Int	01/01/32	15,100	15,100	100 000	15,100		
10	Financing Oblig	Fontana		6 360%	08/21/22	15,493	15,493	100 000	15,493		
11	Financing Oblig	2007M-D Memphis		6 010%	12/30/28	103,953	103,953	100 000	103,953		
12	Financing Oblig	2007M-E Memphis		6 950%	12/30/28	5,471	5,471	100 000	5,471		
13											
14											
15											
16											
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19											
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21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
Total						**$2,249,340**	**$1,655,590**		**$1,655,590**		

Burlington Northern Santa Fe Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Matures In 2009						
1	Note	MTN00010		12189TAM6	6 125%	03/15/09	200,000					
2	Mortgage	MOT00002 Lincoln Nat'l			8 625%	08/01/09	767					
3												
4												
5												
6												
7												
8												
9												
10												
Total							**$200,767**					

Grand Totals

Total Traded and Not Traded	**$7,693,974**	**$7,100,224**	**$7,098,663**
Grand Total (for reconciliation to carrier data only)	**$7,894,741**		

From BNSF:

Total Notes	$2,370,204	
Total Debentures	4,649,000	
Junior Subordinated Notes/Hybrid Debt Securities	500,000	
Total Mortgages	97,289	
Financing Obligations	278,249	
Total	**$7,894,742**	rounding

Two Notes and one Debenture, marked "A" in the workpapers, have balances listed that include "fixed to floating interest rate swaps" The three amounts are $201,485, $312,985, and $708,763 The face amounts for those bonds ($200,000, $300,000, and $650,000) were used here, meaning the swaps have been excluded The total difference of $73,233 (swaps) is instead included in Miscellaneous Debt

CSX Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Traded						
1	Note	CSX Corp	26	126408AP8	6 750%	03/15/11	$500,000	500,000	102 568	$512,839	5 830%	$29,899
2	Note	CSX Corp	27	126408GB3	6 300%	03/15/12	$400,000	400,000	100 329	$401,317	6 280%	$25,203
3	Note	CSX Corp	28	126408GF4	5 300%	02/15/14	$200,000	200,000	94 634	$189,268	6 530%	$12,359
4	Note	CSX Corp	29	126408GJ6	5 600%	05/01/17	$300,000	300,000	90 827	$272,482	7 060%	$19,237
5	Debenture	CSX Corp	30	126408AQ6	8 100%	09/15/22	$93,591	93,591	108 558	$101,601	7 200%	$7,315
6	Debenture	CSX Corp	31	126408AM5	8 625%	05/15/22	$115,712	115,712	112 999	$130,753	7 200%	$9,414
7	Med Term Notes	CSX Corp	32	12641LBU6	6 800%	12/01/28	$200,000	200,000	91 162	$182,324	7 720%	$14,075
8	Med Term Notes	CSX Corp	33	126408GH0	6 000%	10/01/36	$400,000	400,000	81 407	$325,629	7 670%	$24,976
9	Note	CSX Corp	34	126408GK3	6 150%	05/01/37	$700,000	700,000	82 624	$578,367	7 700%	$44,534
10	Note	CSXT - Conrail	35	209864AT4	9 750%	06/15/20	$227,171	227,171	118 125	$268,345	7 470%	$20,045
11												
12												
13												
14												
15												
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21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Total							**$3,136,474**	**$3,136,474**		**$2,962,925**	**6.988%**	**$207,057**

CSX Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Not Traded						
1	Med Term Notes	CSX Corp			9 780%	02/14/11	7,500	7,500	100 000	7,500		
2	Notes	CSX Corp			5 500%	08/01/13	300,000	300,000	100 000	300,000		
3	Notes	CSX Corp			5 750%	03/15/13	400,000	400,000	100 000	400,000		
4		CSX Corp	**New 3/27/2008**		6 250%	04/01/15	600,000	450,000	100 000	450,000		
5	Debentures	CSX Corp			7 900%	05/01/17	384,769	384,769	100 000	384,769		
6	Notes	CSX Corp			6 250%	03/15/18	600,000	600,000	100 000	600,000		
7	Med Term Notes	CSX Corp			9 870%	02/12/21	10,000	10,000	100 000	10,000		
8	Debentures	CSX Corp			7 250%	05/01/27	83,312	83,312	100 000	83,312		
9	Debentures	CSX Corp			7 950%	05/01/27	272,614	272,614	100 000	272,614		
10	Med Term Notes	CSX Corp			4 400%	10/25/35	73,304	73,304	100 000	73,304		
11		CSX Corp	**New 3/27/2008**		7 450%	04/01/38	400,000	300,000	100 000	300,000		
12	Convertible	CSX Corp			2.091%	10/30/21	28,054	28,054	100 000	28,054		
13	Conrail 50 yr	CSXT		209864AU1	7 875%	05/15/43	99,989	99,989	100 000	99,989		
14	Conrail Tax Note	CSXT			4 520%	03/31/35	23,100	23,100	100 000	23,100		
15	Del DOT	CSXT			3 910%	03/11/10	1,923	1,923	100 000	1,923		
16	Pen Port	CSXT			6 000%	12/15/12	17,100	17,100	100 000	17,100		
17	Secu Equip Note	CSXT			6 251%	01/15/23	366,337	366,337	100 000	366,337		
18	Secu Equip 2014	CSXT	**New 10/24/2008**		8 375%	10/15/14	350,538	58,423	100 000	58,423		
19	Midland Term	Other			Variable	05/26/13	48,000	48,000	100 000	48,000		
20	TORCO	Other			6 450%	12/15/21	29,700	29,700	100 000	29,700		
21	NCT Note	Other			0 000%	N/A	1,089	1,089	101 000	1,100		
22												
23												
24												
25												
26												
27												
28												
29												
30												
Total							**$4,097,329**	**$3,555,214**		**$3,555,225**		

CSX Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Matures in 2009						
1	Note	CSX Corp		126408GC1	4 875%	11/01/09	200,000					
2												
3												
4												
5												
6												
7												
8												
9												
10												
Total							**$200,000**					

Grand Totals

Total Traded and Not Traded	**$7,233,803**	**$6,691,688**	**$6,518,150**
Grand Total (for reconciliation to carrier data only)	**$7,433,803**		

From CSX:

Corporate Notes	$6,240,802
Convertible Debt	28,054
CSXT Notes	369,283
Secured Equipment Notes	716,875
Other Notes	78,789
Total	$7,433,803

Norfolk Southern Corporation

December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Traded						
1	Debenture	Conrail	36	209864AT4	9 750%	06/15/20	$313,741	313,741	118 125	$370,606	7 470%	$27,684
2	Med Term Note	Series A NSC	37	655844AA6	9 000%	03/01/21	83,372	83,372	122 263	101,933	6 430%	6,554
3	Med Term Note	Senior	38	655844AN8	8 625%	05/15/10	300,000	300,000	107 127	321,382	4 710%	15,137
4	Med Term Note	Senior	39	655844AP3	6 750%	02/15/11	300,000	300,000	104 153	312,460	5 130%	16,029
5	Med Term Note	Senior	40	655844AQ1	7 250%	02/15/31	500,008	500,008	104 967	524,843	6 840%	35,899
6	Med Term Note	Senior 2105	41	655844AV0	6 000%	03/15/05	300,000	300,000	81 032	243,097	7 440%	18,086
7	Med Term Note	Senior	42	655844AX6	5 640%	05/17/29	350,000	350,000	88 081	308,283	6 730%	20,747
8	Med Term Note	Senior	43	655844AW8	5 590%	05/17/25	366,620	366,620	88 719	325,263	6 740%	21,923
9	Conrail Note	CR NSC 2017	44	655844AE8	7 700%	05/15/17	550,000	550,000	110 495	607,723	6 170%	37,497
10	Conrail Note	CR NSC 2027	45	655844AJ7	7 800%	05/15/27	440,000	440,000	110 235	485,034	6 860%	33,273
11	Conrial Note	CR NSC 2037	46	655844AF5	7 050%	05/01/37	716,600	716,600	104 697	750,260	6 700%	50,267
12	Conrail Note	CR NSC 2097	47	655844AK4	7 900%	05/15/97	350,000	350,000	107 869	377,543	7 350%	27,749
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Total							**$4,570,341**	**$4,570,341**		**$4,728,427**	**6.574%**	**$310,845**

Norfolk Southern Corporation

December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Not Traded						
1	Debenture	Conrail		209864AU1	7 875%	05/15/43	138,085	138,085	100 000	138,085		
2	Note	NSC Senior New April			5.750%	04/01/18	600,000	450,000	100 000	450,000		
3	Conrail Note	CR NSC 2014			5 257%	09/17/14	431,456	431,456	100 000	431,456		
4	Other Bond	NSC Poca Dev Timber Bond			8 250%	10/01/19	75,734	75,734	100 000	75,734		
5	Other Bond	NSC Poca Dev Timber Zero				10/01/19	9,169	9,169	100 000	9,169		
6	Other Bond	NS Rwy Marine Terminal			5 300%	08/15/13	27,200	27,200	100 000	27,200		
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Total							**$1,281,644**	**$1,131,644**		**$1,131,644**		

Norfolk Southern Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Matures in 2009						
1	Med Term Note	Senior		655844AL2	6 200%	04/15/09	400,000					
2												
3												
4												
5												
6												
7												
8												
9												
10												
Total							**$400,000**					

	Grand Totals			
Total Traded and Not Traded	**$5,851,985**	**$5,701,985**		**$5,860,071**
Grand Total (for reconciliation to carrier data only)	**$6,251,985**			

From NS:

Total Debt	$6,666,534
Less ETC	99,060
Less Leases (Capital + Yen + Conrail)	138,509
Less Other Interest Rate Swaps/Derivative adjustment plus Net premium/(discount)	-123,020
Less Other Accounts Receivable Securitization	300,000
Bonds, Notes and Debentures	$6,251,985

Union Pacific Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Traded						
1	Debentures	UP Corp	48	907818CX4	6 150%	05/01/37	$248,927	248,927	91 138	$226,867	6 890%	$15,631
2	Debentures	UP Corp	49	907818CU0	6 250%	05/01/34	$246,343	246,343	92 519	$227,914	6 900%	$15,726
3	Debentures	UP Corp	50	907818CF3	6 625%	02/01/29	$594,326	594,326	96 885	$575,812	6 940%	$39,961
4	Debentures	UP Corp	51	907818AZ1	7 000%	02/01/16	$249,417	249,417	105 714	$263,669	6 060%	$15,978
5	Debentures	UP Corp	52	907818BY3	7 125%	02/01/28	$247,547	247,547	102 161	$252,896	6 960%	$17,602
6												
7	Notes	UP Corp	53	907818CV8	4 875%	01/15/15	$249,671	249,671	94.300	$235,439	5 970%	$14,056
8	Notes	UP Corp	54	907818CT3	5 375%	05/01/14	$249,588	249,588	97 922	$244,401	5 830%	$14,249
9	Notes	UP Corp	55	907818CW6	5 650%	05/01/17	$249,286	249,286	96 313	$240,095	6 230%	$14,958
10	Notes	UP Corp	56	907818CN6	6 125%	01/15/12	$297,843	297,843	102 246	$304,532	5 500%	$16,749
11	Notes	UP Corp	57	907818CP1	6 500%	04/15/12	$356,835	356,835	104 211	$371,862	5 310%	$19,746
12	Notes	UP Corp	58	907818CK2	6 650%	01/15/11	$399,430	399,430	103 081	$411,736	5 440%	$22,398
13												
14	Mort Bond	UPRR – MP	59	606198LF4	4 750%	01/01/20	$29,905	29,905	77 917	$23,301	7 880%	$1,836
15	Mort Bond	UPRR – MP	60	606198LG2	4 750%	01/01/30	$28,268	28,268	70 396	$19,899	7 880%	$1,568
16	Inc Debenture	UPRR – MP	61	606198LH0	5 000%	01/01/45	$96,025	96,025	58 542	$56,215	9 050%	$5,087
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Total							**$3,543,411**	**$3,543,411**		**$3,454,638**	**6.239%**	**$215,545**

Union Pacific Corporation
December 31, 2008

	Type	Description	No. CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
					Not Traded						
1	Debentures	UP Corp		5 375%	06/01/33	198,415	198,415	100 000	198,415		
2	Notes	UP Corp		3 625%	06/01/10	299,535	299,535	100 000	299,535		
3	Notes	UP Corp		5 450%	01/31/13	499,397	499,397	100 000	499,397		
4	Notes	UP Corp		5 750%	11/15/17	499,673	499,673	100 000	499,673		
5	Notes	UP Corp (new 2/5)		5 700%	08/15/18	747,621	685,319	100 000	685,319		
6	Notes	UP Corp (new 10/7)		7 875%	01/15/19	748,649	187,162	100 000	187,162		
7	Tax Exempt	UP Corp		Variable	2010 - 2026	156,540	156,540	100 000	156,540		
8	Med Term Notes	Series B		9 2-9 3%	2005 - 2020	7,408	7,408	100 000	7,408		
9	Med Term Notes	Series C		9 5-10 0%	2005 - 2020	44,123	44,123	100 000	44,123		
10	Med Term Notes	Series D		9 17-9 4%	2005 - 2011	10,000	10,000	100 000	10,000		
11	Debt Security	KFW Loan UPRR		7 310%	12/15/12	52,510	52,510	100 000	52,510		
12	RR Tax Exempt	Albany County UPRR		4 400%	12/01/15	8,000	8,000	100 000	8,000		
13	Debentures	MP C&EI UPRR		5 000%	01/01/54	1,641	1,641	100 000	1,641		
14	Debt Security	Illinois DOT UPRR		3 000%	12/31/19	15,859	15,859	100 000	15,859		
15	Debt Security	Illinois DOT UPRR		3 000%	03/14/18	1,429	1,429	100 000	1,429		
16	Debt Security	ITCF 1999 UPRR		5 750%	11/01/14	20,805	20,805	100 000	20,805		
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											
Total						**$3,311,605**	**$2,687,817**		**$2,687,816**		

Union Pacific Corporation
December 31, 2008

	Type	Description	No.	CUSIP	Coupon Rate	Maturity Date	Amt. Outstanding ($000) Year-End	Amt. Outstanding ($000) Used	Average Price	Market Value ($ 000)	Average Yield	Interest Cost ($ 000)
						Matures In 2009						
1	Notes	UP Corp		907818CQ9	3 875%	02/15/09	249,989					
2	Notes	UP Corp		907818CG1	7 375%	09/15/09	149,944					
3	Debt Security	Iowa DOT UPRR			3 000%	12/31/09	50					
4												
5												
6												
7												
8												
9												
10												
Total							**$399,983**					

Grand Totals

Total Traded and Not Traded	**$6,855,016**	**$6,231,228**	**$6,142,454**
Grand Total (for reconciliation to carrier data only)	**$7,254,999**		

From UP:

Debentures, Notes, Tax Exempt, and Medium Term Notes for UP Corp	7,200,365	
Misc LTD (2nd page) including KFW, RR Tax Exempt, CNW, MP, DOT, others, for UP RR	254,268	
Removal of Floating Rate Loan and Commercial Paper	-$199,858	
Removal of MP Debt Discount, Receivable Drawdown, and SP Purch Acct Debt Premium	223	
Total	**$7,254,998**	Difference = rounding

Burlington Northern Santa Fe Corporation

Type:	Note
Description:	MTN00005
CUSIP:	12189QAB6
Coupon Rate:	6 530%
Maturity Date:	7/15/37
Amount Outstanding ($ 000)	$170,100
Months Outstanding	12

End of Month	Price	Yield
January	99 477	6 57 %
February	101 568	6 41
March	100 378	6 49
April	99 858	6 53
May	97 327	6 73
June	98 336	6 65
July	96 475	6 81
August	98 837	6 62
September	95 987	6 85
October	81 835	8 17
November	86 543	7 69
December	95 649	6 87
Average	96 023	6 87 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

2

Type.	Note
Description:	MTN00014
CUSIP:	12189TAT1
Coupon Rate:	6 750%
Maturity Date:	7/15/11
Amount Outstanding ($ 000)	$400,000
Months Outstanding	12

End of Month	Price	Yield
January	107 309	4 44 %
February	108 631	3 99
March	106 905	4 46
April	104 133	5 32
May	104 595	5 13
June	104 872	5 00
July	104 771	4 99
August	105 467	4 69
September	104 385	5 04
October	100 217	6 65
November	100 624	6 48
December	101 648	6 03
Average	104 463	5 19 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

[3]

Type.	Note
Description:	MTN00015
CUSIP:	12189TAU8
Coupon Rate:	5 900%
Maturity Date:	7/1/12
Amount Outstanding ($ 000)	$300,000
Months Outstanding	12 0

End of Month	Price	Yield
January	104 882	4 66 %
February	106 486	4 24
March	104 678	4 67
April	103 559	4 94
May	102 795	5 13
June	102 822	5 11
July	102 201	5 26
August	103 043	5 01
September	102 257	5 22
October	97 847	6 56
November	97 793	6 59
December	98 796	6 28
Average	102 263	5 31 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

4

Type:	Note
Description:	MTN00016
CUSIP:	12189TAV6
Coupon Rate	4 300%
Maturity Date:	7/1/13
Amount Outstanding ($ 000)	$250,000
Months Outstanding	12 0

End of Month	Price	Yield
January	97 128	4 90 %
February	98 697	4 57
March	98 153	4 69
April	96 194	5 14
May	94 573	5 53
June	94 653	5 53
July	94 938	5 48
August	95 826	5 28
September	93 336	5 92
October	88 800	7 16
November	90 997	6 60
December	92 804	6 15
Average	94 675	5 58 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

5

Type:	Note
Description:	MTN00017
CUSIP:	12189TAW4
Coupon Rate:	4 875%
Maturity Date.	1/1/15
Amount Outstanding ($ 000)	$250,000
Months Outstanding	12

End of Month	Price	Yield
January	97 217	5 35 %
February	99 824	4 90
March	100 135	4 85
April	97 525	5 31
May	95 331	5 73
June	95 877	5 63
July	96 259	5 57
August	97 077	5 42
September	95 845	5 66
October	89 220	7 04
November	90 995	6 68
December	94 106	6 05
Average	95 784	5 68 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

6

Type:	Debenture
Description:	DEB00004
CUSIP:	12189TAA2
Coupon Rate:	7 000%
Maturity Date:	12/15/25
Amount Outstanding ($ 000)	$350,000
Months Outstanding	12

End of Month	Price	Yield
January	105 554	6 47 %
February	105 428	6 48
March	*105 416*	*6 48*
April	105 297	6 49
May	102 855	6 72
June	103 893	6 62
July	102 316	6 77
August	103 341	6 67
September	99 393	7 05
October	87 972	8 32
November	94 136	7 61
December	101 988	6 80
Average	101 466	6 87 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

Type:	Debenture
Description:	DEB00005
CUSIP:	12189TAB0
Coupon Rate:	6 875%
Maturity Date:	2/15/16
Amount Outstanding ($ 000)	$175,000
Months Outstanding	12

End of Month	Price	Yield
January	108.555	5 54 %
February	109 685	5 36
March	109 002	5 45
April	107 602	5 65
May	106 281	5 84
June	106 362	5 82
July	106 192	5 84
August	107 373	5 64
September	105 410	5 95
October	96 818	7 44
November	101 788	6 55
December	101 598	6 58
Average	105 556	5 97 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

[8]

Type:	Debenture
Description:	DEB00006
CUSIP:	12189TAD6
Coupon Rate:	7 290%
Maturity Date:	6/1/36
Amount Outstanding ($ 000)	$199,000
Months Outstanding	12

End of Month	Price	Yield
January	108 778	6 60 %
February	109 734	6 52
March	109 443	6 55
April	106 480	6 77
May	105 318	6 86
June	106 344	6 78
July	105 038	6 88
August	107 508	6 69
September	102 519	7 08
October	88 821	8 32
November	95 670	7 66
December	105 399	6 85
Average	104 254	6 96 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

9

Type:	Debenture
Description:	DEB00007
CUSIP:	12189TAF1
Coupon Rate:	7 250%
Maturity Date:	8/1/97
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	Price	Yield
January	109 984	6 59 %
February	109 810	6 60
March	108 983	6 65
April	105 964	6 84
May	102 238	7 09
June	103 408	7 00
July	101 253	7 16
August	103 999	6 97
September	101 951	7 11
October	85 486	8 47
November	90 392	8 01
December	100 685	7 19
Average	102 013	7 14 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

10

Type:	Debenture
Description:	DEB00008
CUSIP:	12189TAG9
Coupon Rate:	6 875%
Maturity Date:	12/1/27
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	Price	Yield
January	103 792	6 53 %
February	103 670	6 54
March	103 665	6 54
April	103 549	6 55
May	101 452	6 74
June	102 315	6 66
July	100 680	6 81
August	102 738	6 62
September	98 576	7 00
October	86 208	8 32
November	91 650	7 71
December	99 729	6 90
Average	99 835	6 91 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

11

Type:	Debenture
Description:	DEB00009
CUSIP:	12189TAJ3
Coupon Rate:	6 700%
Maturity Date:	8/1/28
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	Price	Yield
January	101 904	6 53 %
February	102 463	6 48
March	102 454	6 48
April	101 768	6 54
May	99 551	6 73
June	100 432	6 65
July	98 807	6 81
August	100 870	6 62
September	96 693	7 00
October	84 323	8 32
November	89 754	7 71
December	97 863	6 89
Average	98 074	6 90 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

12

Type·	Debenture
Description:	DEB00010
CUSIP·	12189TAN4
Coupon Rate:	6 750%
Maturity Date:	3/15/29
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	·Price	Yield
January	102 492	6 52 %
February	103 074	6 47
March	102 834	6 50
Apnl	102 132	6 56
May	100 431	6 71
June	101 328	6 62
July	99 660	6 77
August	101 783	6 58
September	97 192	7 01
October	84 619	8 32
November	90 123	7 71
December	98 365	6 89
Average	98 669	6 89 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

[13]

Type:	Debenture
Description:	DEB00011
CUSIP:	12189TAK0
Coupon Rate:	7 082%
Maturity Date:	5/13/29
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	Price	Yield
January	106 046	6 55 %
February	106 274	6 53
March	106 029	6 55
April	105 671	6 58
May	103 917	6 73
June	102 769	6 83
July	101 646	6 93
August	103 773	6 74
September	100 334	7 04
October	87 469	8 36
November	92 523	7 81
December	100 870	7 00
Average	101 443	6 97 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

(14)

Type:	Debenture
Description:	DEB00012
CUSIP:	12189TAQ7
Coupon Rate	8 125%
Maturity Date:	4/15/20
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	Price	Yield
January	118 275	5 99 %
February	120 214	5 78
March	120 323	5 76
April	114 608	6 36
May	112 928	6 54
June	114 735	6 33
July	114 036	6 40
August	115 489	6 23
September	110 809	6 76
October	97 780	8 43
November	104 632	7 51
December	108 900	6 97
Average	112 727	6 59 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

[15]

Type:	Debenture
Description:	DEB00013
CUSIP:	12189TAR5
Coupon Rate:	7 950%
Maturity Date:	8/15/30
Amount Outstanding ($ 000)	$275,000
Months Outstanding	12

End of Month	Price	Yield
January	116 236	6 56 %
February	116 730	6 52
March	116 436	6 54
April	115 495	6 61
May	112 938	6 81
June	113 923	6 73
July	112 660	6 83
August	115 019	6 64
September	109 119	7 12
October	94 754	8 47
November	101 329	7 82
December	108 377	7 18
Average	111 085	6 99 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

16

Type:	Debenture
Description:	DEB00014
CUSIP:	12189TAX2
Coupon Rate:	6 200%
Maturity Date:	8/15/36
Amount Outstanding ($ 000)	$300,000
Months Outstanding	12

End of Month	Price	Yield
January	96 755	6 44 %
February	97 264	6 41
March	96 377	6 48
April	97 901	6 35
May	94 777	6 60
June	95 767	6 52
July	92 763	6 77
August	95 657	6 54
September	91 837	6 85
October	78 570	8 15
November	83 401	7 64
December	92 212	6 82
Average	92 773	6 80 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

17

Type:	Debenture
Description:	DEB00015
CUSIP:	12189TAY0
Coupon Rate:	5 650%
Maturity Date:	5/1/17
Amount Outstanding ($ 000)	$650,000
Months Outstanding	12

End of Month	Price	Yield
January	101 138	5 49 %
February	102 287	5 33
March	100 135	5 63
April	100 629	5 56
May	98 417	5 88
June	97 753	5 98
July	97 107	6 08
August	98 714	5 84
September	95 801	6 29
October	87 508	7 68
November	92 056	6 91
December	96 018	6 27
Average	97 297	6 08 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

18

Type:	Debenture
Description.	DEB00016
CUSIP:	12189TAZ7
Coupon Rate:	6 150%
Maturity Date:	5/1/37
Amount Outstanding ($ 000)	$650 000
Months Outstanding	12

End of Month	Price	Yield
January	96 445	6 41 %
February	96 578	6 40
March	95 950	6 45
April	98 143	6 29
May	94 586	6 57
June	94 219	6 60
July	92 299	6 75
August	94 969	6 53
September	91 265	6 84
October	78 341	8 10
November	82 707	7 64
December	92 102	6 77
Average	92 300	6 78 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

19

Type	Debenture
Description:	DBN00001
CUSIP:	121897WQ1
Coupon Rate:	8 750%
Maturity Date:	2/25/22
Amount Outstanding ($ 000)	$200.000
Months Outstanding	12

End of Month	Price	Yield
January	125 970	5 99 %
February	128 203	5 78
March	128 317	5 76
April	121 730	6 36
May	119 804	6 54
June	120 852	6 43
July	120 064	6 50
August	121 719	6 33
September	116 376	6 86
October	102 913	8 38
November	110 265	7 51
December	115 140	6 97
Average	119 279	6 62 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

20

Type:	Mortgage
Description:	MTB00002 Ser K
CUSIP:	121899CD8
Coupon Rate:	6 550%
Maturity Date:	1/1/20
Amount Outstanding ($ 000)	$3,978
Months Outstanding	12

End of Month	Price	Yield
January	104 000	6 07 %
February	104 000	6 07
March	104 000	6 07
April	104 000	6 06
May	104 000	6 06
June	104 000	6 06
July	104 000	6 06
August	104 000	6 06
September	104 000	6 05
October	104 000	6 05
November	104 000	6 05
December	104 000	6 05
Average	104 000	6 06 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

21

Type:	Mortgage
Description:	MTB00003 Ser L
CUSIP.	121899CC0
Coupon Rate.	3 800%
Maturity Date:	1/1/20
Amount Outstanding ($ 000)	$6,195
Months Outstanding	12

End of Month	Price	Yield
January	Not Traded	- %
February	77 550	6 55
March	76 500	6 72
April	79 250	6 34
May	79 250	6 36
June	79 250	6 37
July	79 250	6 39
August	79 250	6 40
September	79 250	6 42
October	82 000	6 03
November	82 000	6 05
December	82 000	6 07
Average	79 595	6 34 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

22

Type:	Mortgage
Description:	MTB00004 Ser M
CUSIP:	121899CH9
Coupon Rate:	3 200%
Maturity Date:	1/1/45
Amount Outstanding ($ 000)	$12,998
Months Outstanding	12

End of Month	Price	Yield
January	Not Traded	- %
February	Not Traded	-
March	50 150	6 98
April	50 150	6 99
May	50 150	6 99
June	50 150	7 00
July	50 150	6 99
August	50 150	7 00
September	49 750	7 05
October	49 750	7 06
November	42 000	8 26
December	42 000	8 27
Average	48 440	7 26 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

23

Type:	Mortgage
Description:	MTB00005 Ser N
CUSIP:	121899CF3
Coupon Rate:	8 150%
Maturity Date:	1/1/20
Amount Outstanding ($ 000)	$2,506
Months Outstanding	12

End of Month	Price	Yield
January	125 000	5 29 %
February	124 000	5 38
March	124 000	5 37
April	124 000	5 36
May	124 000	5 34
June	124 000	5 33
July	124 000	5 32
August	124 000	5 30
September	124 000	5 29
October	124 000	5 28
November	124 000	5 26
December	124 000	5 25
Average	124 083	5 31 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

24

Type:	Mortgage
Description:	MTB00006 Ser O
CUSIP:	121899CE6
Coupon Rate:	6 550%
Maturity Date:	1/1/20
Amount Outstanding ($ 000)	$15,378
Months Outstanding	12

End of Month	Price	Yield
January	Not Traded	- %
February	Not Traded	-
March	Not Traded	-
April	Not Traded	-
May	Not Traded	-
June	Not Traded	-
July	Not Traded	-
August	99 000	6 67
September	100 000	6 54
October	100 000	6 55
November	100 000	6 55
December	100 000	6 55
Average	99 800	6 57 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

25

Type:	Mortgage
Description:	MTB00010 NP GLB
CUSIP:	665585JP1
Coupon Rate:	3 000%
Maturity Date:	1/1/47
Amount Outstanding ($ 000)	$34,479
Months Outstanding	12

End of Month	Price	Yield
January	71 000	4 61 %
February	71 000	4 61
March	70 000	4 68
April	49 000	6 71
May	50 000	6 58
June	50 000	6 59
July	45 000	7 27
August	47 500	6 92
September	45 000	7 28
October	35 000	9 14
November	37 000	8 70
December	40 000	8 12
Average	50 875	6 77 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

26	**Type.**	Note
	Description:	CSX Corp
	CUSIP.	126408AP8
	Coupon Rate:	6 750%
	Maturity Date:	3/15/11
	Amount Outstanding ($ 000)	$500,000
	Months Outstanding	12

End of Month	Price	Yield
January	106 947	4 34 %
February	106 917	4 30
March	105 575	4 70
April	104 667	4 98
May	103 142	5 51
June	103 635	5 28
July	101 861	5 96
August	102 507	5 67
September	102 193	5 77
October	96 521	8 39
November	97 242	8 08
December	99 606	6 93
Average	102 568	5 83 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

27

Type:	Note
Description:	CSX Corp
CUSIP:	126408GB3
Coupon Rate:	6 300%
Maturity Date:	3/15/12
Amount Outstanding ($ 000)	$400,000
Months Outstanding	12

End of Month	Price	Yield
January	104 733	5 01 %
February	105 283	4 84
March	103 412	5 33
April	103 059	5 41
May	101 281	5 91
June	100 197	6 23
July	99 743	6 37
August	100 567	6 11
September	99 939	6 31
October	93 677	8 49
November	95 238	7 96
December	96 823	7 42
Average	100 329	6 28 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

28

Type:	Note
Description:	CSX Corp
CUSIP:	126408GF4
Coupon Rate:	5 300%
Maturity Date:	2/15/14
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	Price	Yield
January	100 048	5 29 %
February	100 551	5 19
March	98 803	5 54
April	97 195	5 87
May	95 423	6 26
June	95 772	6 20
July	95 021	6 38
August	95 843	6 20
September	93 329	6 80
October	84 919	8 93
November	88 446	8 05
December	90 256	7 63
Average	94 634	6.53 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

29

Type:	Note
Description:	CSX Corp
CUSIP:	126408GJ6
Coupon Rate:	5 600%
Maturity Date:	5/1/17
Amount Outstanding ($ 000)	$300 000
Months Outstanding	12 0

End of Month	Price	Yield
January	97 599	5 93 %
February	97 342	5 97
March	95 012	6 32
April	95 845	6 20
May	93 466	6 57
June	92 246	6 77
July	89 264	7 27
August	90 651	7 05
September	87 099	7 67
October	78 207	9 37
November	84 359	8 20
December	88 839	7 41
Average	90 827	7 06 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

Type:	Debenture
Description:	CSX Corp
CUSIP:	126408AQ6
Coupon Rate:	8 100%
Maturity Date:	9/15/22
Amount Outstanding ($ 000)	$93,591
Months Outstanding	12

End of Month	Price	Yield
January	120 344	5 99 %
February	120 387	5 98
March	115 559	6 43
April	115 391	6 44
May	111 841	6 79
June	111 026	6 87
July	106 325	7 37
August	107 862	7 20
September	102 346	7 82
October	87 444	9 76
November	98 758	8 25
December	105 414	7 46
Average	108 558	7 20 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

31

Type:	Debenture
Description.	CSX Corp
CUSIP:	126408AM5
Coupon Rate:	8 625%
Maturity Date:	5/15/22
Amount Outstanding ($ 000)	$115,712
Months Outstanding	12

End of Month	Price	Yield
January	125 034	5 99 %
February	125 052	5 98
March	120 154	6 43
April	119 980	6 44
May	116 369	6 79
June	115 519	6 87
July	110 727	7 37
August	112 262	7 20
September	106 657	7 82
October	91 500	9 76
November	103 005	8 25
December	109 730	7 46
Average	112 999	7 20 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

32

Type:	Med Term Notes
Description:	CSX Corp
CUSIP:	12641LBU6
Coupon Rate:	6 800%
Maturity Date:	12/1/28
Amount Outstanding ($ 000)	$200,000
Months Outstanding	12

End of Month	Price	Yield
January	100 989	6 71 %
February	99 218	6 86
March	96 656	7 10
April	97 829	6 99
May	95 031	7 26
June	95 235	7 24
July	88 853	7 90
August	90 639	7 71
September	86 290	8 19
October	72 169	10 04
November	82 628	8 63
December	88 408	7 96
Average	91 162	7 72 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

33

Type:	Med Term Notes
Description:	CSX Corp
CUSIP:	126408GH0
Coupon Rate:	6 000%
Maturity Date:	10/1/36
Amount Outstanding ($ 000)	$400 000
Months Outstanding	12

End of Month	Price	Yield
January	89 725	6 81 %
February	88 490	6 92
March	86 088	7 15
April	88 063	6 96
May	85 782	7 17
June	86 653	7 09
July	79 493	7 80
August	81 337	7 61
September	75 999	8 19
October	62 742	9 97
November	73 310	8 51
December	79 204	7 84
Average	81 407	7 67 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

34

Type:	Note
Description:	CSX Corp
CUSIP:	126408GK3
Coupon Rate:	6 150%
Maturity Date:	5/1/37
Amount Outstanding ($ 000)	$700,000
Months Outstanding	12 0

End of Month	Price	Yield
January	91 781	6 79 %
February	91 087	6 85
March	88 040	7 12
April	89 058	7 03
May	87 513	7 17
June	83 837	7 52
July	80 603	7 85
August	81 971	7 71
September	77 507	8 19
October	65 127	9 80
November	74 941	8 49
December	80 021	7 92
Average	82 624	7 70 %

Source Standard & Poor's XpressFeed – Bond Package

CSX Corporation

35

Type	Note
Description:	CSXT - Conrail
CUSIP:	209864AT4
Coupon Rate:	9 750%
Maturity Date:	6/15/20
Amount Outstanding ($ 000)	$227,171
Months Outstanding	12

End of Month	Price	Yield
January	125 971	6 63 %
February	125 911	6 63
March	120 180	7 23
April	123 680	6 84
May	120 950	7 12
June	121 484	7 05
July	121 344	7 06
August	122.764	6 89
September	112 911	8 02
October	101 135	9 58
November	107 815	8 66
December	113 352	7 95
Average	118 125	7 47 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

36

Type:	Debenture
Description:	Conrail
CUSIP·	209864AT4
Coupon Rate:	9 750%
Maturity Date:	6/15/20
Amount Outstanding ($ 000)	$313,741
Months Outstanding	12

End of Month	Price	Yield
January	125 971	6 63 %
February	125 911	6 63
March	120 180	7 23
April	123 680	6 84
May	120 950	7 12
June	121 484	7 05
July	121 344	7 06
August	122 764	6 89
September	112 911	8 02
October	101 135	9 58
November	107 815	8 66
December	113 352	7 95
Average	118 125	7 47 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

37

Type:	Med Term Note
Description:	Series A NSC
CUSIP:	655844AA6
Coupon Rate:	9 000%
Maturity Date:	3/1/21
Amount Outstanding ($ 000)	$83,372
Months Outstanding	12

End of Month	Price	Yield
January	128 605	5 84 %
February	129 346	5 76
March	129 648	5 72
Apnl	125 729	6 08
May	122 304	6 41
June	122 115	6 42
July	121 437	6 48
August	123 010	6 31
September	119 449	6 67
October	108 134	7 95
November	115 085	7 13
December	122 291	6 34
Average	122 263	6 43 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

[38]

Type:	Med Term Note
Description:	Senior
CUSIP:	655844AN8
Coupon Rate.	8 625%
Maturity Date:	5/15/10
Amount Outstanding ($ 000)	$300,000
Months Outstanding	12

End of Month	Price	Yield
January	110 876	3 62 %
February	111 635	3 13
March	111.204	3 12
April	108 513	4 22
May	107 519	4 56
June	107 137	4 60
July	106 888	4 56
August	106 539	4 60
September	106 351	4 52
October	105 993	4 54
November	101 432	7 56
December	101 440	7 48
Average	107 127	4 71 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

39

Type:	Med Term Note
Description:	Senior
CUSIP:	655844AP3
Coupon Rate:	6 750%
Maturity Date:	2/15/11
Amount Outstanding ($ 000)	$300,000
Months Outstanding	12

End of Month	Price	Yield
January	107 477	4 10 %
February	107 893	3 90
March	107 641	3 90
April	105 483	4 63
May	104 143	5 08
June	104 817	4 77
July	104 667	4 77
August	105 186	4 49
September	104 294	4 81
October	96 397	8 50
November	100 680	6 40
December	101 161	6 15
Average	104 153	5 13 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

40

Type:	Med Term Note
Description:	Senior
CUSIP:	655844AQ1
Coupon Rate:	7 250%
Maturity Date:	2/15/31
Amount Outstanding ($ 000)	$500,008
Months Outstanding	12

End of Month	Price	Yield
January	108 381	6 54 %
February	109 005	6 48
March	109 885	6 41
April	110 902	6 33
May	107 738	6 58
June	108 484	6 52
July	105 202	6 79
August	107 493	6 60
September	104 842	6 82
October	88 819	8 36
November	94 703	7 75
December	104 148	6 88
Average	104 967	6 84 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

41

Type:	Med Term Note
Description:	Senior 2105
CUSIP:	655844AV0
Coupon Rate	6 000%
Maturity Date:	3/15/05
Amount Outstanding ($ 000)	$300,000
Months Outstanding	12

End of Month	Price	Yield
January	87 345	6 86 %
February	86 222	6 95
March	87 096	6 89
April	84 515	7 10
May	81 636	7 35
June	82 649	7 26
July	81 198	7 38
August	83 348	7 19
September	78 544	7 64
October	67 183	8 93
November	72 111	8 32
December	80 541	7 44
Average	81 032	7 44 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

42

Type:	Med Term Note
Description:	Senior
CUSIP:	655844AX6
Coupon Rate:	5 640%
Maturity Date:	5/17/29
Amount Outstanding ($ 000)	$350,000
Months Outstanding	12

End of Month	Price	Yield
January	91 081	6 41 %
February	90 999	6 42
March	90 705	6 45
April	92 467	6 29
May	89 812	6 53
June	90 255	6 49
July	88 210	6 69
August	90 203	6 50
September	86 079	6 91
October	74 729	8 20
November	80 743	7 49
December	91 687	6 37
Average	88 081	6 73 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

Type	Med Term Note
Description:	Senior
CUSIP:	655844AW8
Coupon Rate:	5 590%
Maturity Date:	5/17/25
Amount Outstanding ($ 000)	$366,620
Months Outstanding	12 0

End of Month	Price	Yield
January	92 281	6 32 %
February	91 909	6 36
March	91 542	6 40
April	93 238	6 23
May	90 804	6 49
June	90 396	6 53
July	88 605	6 73
August	90 637	6 51
September	86 954	6 92
October	76 541	8 20
November	82 094	7 50
December	89 631	6 63
Average	88 719	6 74 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

44

Type:	Conrail Note
Description:	CR NSC 2017
CUSIP:	655844AE8
Coupon Rate:	7 700%
Maturity Date:	5/15/17
Amount Outstanding ($ 000)	$550,000
Months Outstanding	12

End of Month	Price	Yield
January	114 755	5 63 %
February	116 676	5 37
March	115 696	5 48
April	114 650	5 61
May	112 145	5 93
June	111 320	6 03
July	110 507	6 13
August	112 437	5 85
September	108 197	6 44
October	98 320	7 97
November	104 045	7 05
December	107 192	6 56
Average	110 495	6 17 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

45

Type:	Conrail Note
Description:	CR NSC 2027
CUSIP:	655844AJ7
Coupon Rate	7 800%
Maturity Date:	5/15/27
Amount Outstanding ($ 000)	$440,000
Months Outstanding	12

End of Month	Price	Yield
January	118 270	6 16 %
February	117 124	6 25
March	116 127	6 33
April	114 185	6 49
May	111 242	6 74
June	112 247	6 65
July	110 727	6 78
August	111 958	6 67
September	109 232	6 91
October	92 561	8 60
November	100 090	7 79
December	109 056	6 92
Average	110 235	6 86 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

46

Type:	Connal Note
Description:	CR NSC 2037
CUSIP:	655844AF5
Coupon Rate:	7 050%
Maturity Date:	5/1/37
Amount Outstanding ($ 000)	$716,600
Months Outstanding	12

End of Month	Price	Yield
January	109 921	6 30 %
February	109 075	6 36
March	109 184	6 35
April	110 923	6 23
May	106 481	6 54
June	108 033	6 43
July	104 345	6 70
August	106 175	6 56
September	103 150	6 79
October	86 356	8 30
November	98 151	7 20
December	104 572	6 68
Average	104 697	6 70 %

Source Standard & Poor's XpressFeed – Bond Package

Norfolk Southern Corporation

47

Type.	Conrail Note
Description:	CR NSC 2097
CUSIP:	655844AK4
Coupon Rate:	7 900%
Maturity Date:	5/15/97
Amount Outstanding ($ 000)	$350,000
Months Outstanding	12

End of Month	Price	Yield
January	114 442	6 90 %
February	112 974	6 98
March	113 139	6 97
April	111 398	7 08
May	108 347	7 29
June	109 691	7 20
July	107 746	7 32
August	112 652	7 00
September	105 453	7 48
October	91 014	8 67
November	97 888	8 07
December	109 689	7 20
Average	107 869	7 35 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

48

Type:	Debentures
Description:	UP Corp
CUSIP:	907818CX4
Coupon Rate:	6 150%
Maturity Date:	5/1/37
Amount Outstanding ($ 000)	$248,927
Months Outstanding	12 0

End of Month	Price	Yield
January	96 573	6 40 %
February	95 816	6 46
March	96 585	6 40
April	98 405	6 27
May	94 463	6 58
June	95 706	6 48
July	91 127	6 85
August	91 602	6 81
September	85 427	7 37
October	74 015	8 60
November	81 243	7 79
December	92 692	6 72
Average	91 138	6 89 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

49

Type:	Debentures
Description:	UP Corp
CUSIP:	907818CU0
Coupon Rate:	6 250%
Maturity Date:	5/1/34
Amount Outstanding ($ 000)	$246 343
Months Outstanding	12

End of Month	Price	Yield
January	98 625	6 35 %
February	97 910	6 41
March	97 824	6 42
April	94 964	6 66
May	94 223	6 72
June	95 956	6 57
July	92 548	6 86
August	94 357	6 71
September	88 676	7 22
October	75 950	8 58
November	84 965	7 59
December	94 228	6 72
Average	92 519	6 90 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

50

Type:	Debentures
Description:	UP Corp
CUSIP:	907818CF3
Coupon Rate:	6 625%
Maturity Date:	2/1/29
Amount Outstanding ($ 000)	$594,326
Months Outstanding	12

End of Month	Price	Yield
January	102 579	6 40 %
February	101 729	6 47
March	101 693	6 47
April	102 467	6 40
May	100 047	6 61
June	101 375	6 50
July	96 849	6 91
August	96 822	6 91
September	94 101	7 17
October	81 258	8 59
November	89 025	7 70
December	94 673	7 12
Average	96 885	6 94 %

Source: Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

51

Type:	Debentures
Description:	UP Corp
CUSIP:	907818AZ1
Coupon Rate:	7 000%
Maturity Date:	2/1/16
Amount Outstanding ($ 000)	$249,417
Months Outstanding	12

End of Month	Price	Yield
January	110 410	5 38 %
February	108 555	5 64
March	106 313	5 97
April	107 803	5 73
May	106 021	6 00
June	106 502	5 92
July	106 598	5 89
August	107 761	5 70
September	104 789	6 17
October	98 205	7 32
November	101 714	6 69
December	103 897	6 30
Average	105 714	6 06 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

52

Type:	Debentures
Description:	UP Corp
CUSIP:	907818BY3
Coupon Rate:	7 125%
Maturity Date:	2/1/28
Amount Outstanding ($ 000)	$247,547
Months Outstanding	12

End of Month	Price	Yield
January	109 546	6 28 %
February	108 781	6 34
March	109 576	6 27
April	106 709	6 51
May	104 298	6 72
June	105 623	6 60
July	101 745	6 96
August	103 778	6 77
September	98 358	7 28
October	85 850	8 64
November	91 604	7 98
December	100 062	7 11
Average	102 161	6 96 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

53

Type:	Notes
Description:	UP Corp
CUSIP:	907818CV8
Coupon Rate:	4 875%
Maturity Date:	1/15/15
Amount Outstanding ($ 000)	$249,671
Months Outstanding	12

End of Month	Price	Yield
January	95 607	5 64 %
February	98 480	5 13
March	99 668	4 93
April	96 551	5 49
May	95 410	5 71
June	94 821	5 83
July	93 997	6 01
August	94 832	5 85
September	92 933	6 24
October	89 089	7 07
November	88 802	7 16
December	91 404	6 62
Average	94 300	5 97 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

54

Type:	Notes
Description:	UP Corp
CUSIP:	907818CT3
Coupon Rate.	5 375%
Maturity Date:	5/1/14
Amount Outstanding ($ 000)	$249,588
Months Outstanding	12

End of Month	*Price*	*Yield*
January	98 719	5 61 %
February	102 036	4 98
March	102 925	4 81
Apnl	99 770	5 42
May	97 758	5 82
June	98 172	5 74
July	98 335	5 71
August	99 118	5 55
September	97 334	5 94
October	94 063	6 68
November	92 507	7 06
December	94 326	6 65
Average	97 922	5 83 %

Source Standard & Poor's XpressFeed – Bond Package

Burlington Northern Santa Fe Corporation

55

Type:	Notes
Description:	UP Corp
CUSIP:	907818CW6
Coupon Rate:	5 650%
Maturity Date:	5/1/17
Amount Outstanding ($ 000)	$249,286
Months Outstanding	12 0

End of Month	Price	Yield
January	100 133	5 62 %
February	100 488	5 58
March	99 784	5 67
April	100 629	5 56
May	98 205	5 91
June	97 265	6 05
July	96 550	6 16
August	96 959	6 10
September	92 806	6 76
October	85 550	8 02
November	91 454	7 00
December	95 933	6 28
Average	96 313	6 23 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

56

Type:	Notes
Description:	UP Corp
CUSIP:	907818CN6
Coupon Rate:	6 125%
Maturity Date:	1/15/12
Amount Outstanding ($ 000)	$297,843
Months Outstanding	12

End of Month	Price	Yield
January	106 447	4 33 %
February	106 179	4 37
March	106 170	4 33
April	103 825	4 97
May	102 587	5 32
June	103 169	5 13
July	103 313	5 06
August	103 869	4 86
September	101 809	5 51
October	95 602	7 69
November	96 606	7 35
December	97 375	7 09
Average	102 246	5 50 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

57

Type:	Notes
Description:	UP Corp
CUSIP:	907818CP1
Coupon Rate:	6 500%
Maturity Date:	4/15/12
Amount Outstanding ($ 000)	$356,835
Months Outstanding	12

End of Month	Price	Yield
January	107 900	4 41 %
February	109 005	4 10
March	108 185	4 27
April	105 909	4 84
May	104 433	5 21
June	104 536	5 16
July	103 886	5 32
August	104 664	5 07
September	101 306	6 08
October	97 170	7 44
November	100 873	6 20
December	102 667	5 59
Average	104 211	5 31 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

58

Type:	Notes
Description:	UP Corp
CUSIP:	907818CK2
Coupon Rate:	6 650%
Maturity Date:	1/15/11
Amount Outstanding ($ 000)	$399,430
Months Outstanding	12

End of Month	Price	Yield
January	106 019	4 45 %
February	106 609	4 18
March	105 639	4 47
April	105 454	4 48
May	104 377	4 85
June	104 374	4 80
July	103 047	5 30
August	103 565	5 03
September	103 032	5 22
October	97 275	8 01
November	97 930	7 71
December	99 651	6 83
Average	103 081	5 44 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

.59

Type:	Mort Bond
Description:	UPRR – MP
CUSIP:	606198LF4
Coupon Rate:	4 750%
Maturity Date:	1/1/20
Amount Outstanding ($ 000)	$29,905
Months Outstanding	12

End of Month	Price	Yield
January	88 500	6 12 %
February	91 750	5 72
March	85 000	6 60
April	85 750	6 51
May	82 000	7 05
June	80 000	7 36
July	81 000	7 22
August	85 000	6 65
September	76 000	8 03
October	60 000	11 08
November	60 000	11 12
December	60 000	11 15
Average	77 917	7 88 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

60

Type:	Mort Bond
Description:	UPRR -- MP
CUSIP:	606198LG2
Coupon Rate	4 750%
Maturity Date:	1/1/30
Amount Outstanding ($ 000)	$28,268
Months Outstanding	12

End of Month	Price	Yield
January	85 750	5 92 %
February	82 000	6 27
March	85 000	5 99
Apnl	78 000	6 69
May	80 000	6 48
June	82 000	6 29
July	70 000	7 61
August	73 000	7 26
September	66 000	8 14
October	47 000	11 45
November	47 000	11 47
December	49 000	11 04
Average	70 396	7 88 %

Source Standard & Poor's XpressFeed – Bond Package

Union Pacific Corporation

61

Type:	Inc Debenture
Description:	UPRR – MP
CUSIP:	606198LH0
Coupon Rate:	5 000%
Maturity Date:	1/1/45
Amount Outstanding ($ 000)	$96,025
Months Outstanding	12

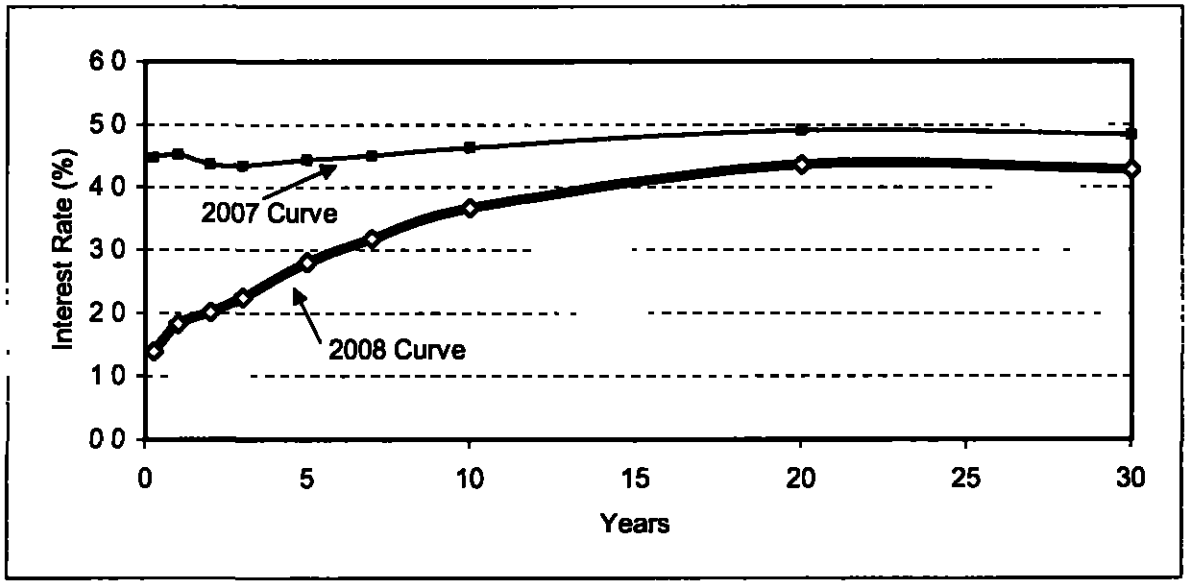
End of Month	Price	Yield
January	68 000	7 60 %
February	68 000	7 60
March	65 000	7 95
April	62 500	8 27
May	64 000	8 08
June	62 000	8 34
July	60 000	8 61
August	62 000	8 34
September	60 000	8 61
October	42 000	12 14
November	42 000	12 14
December	47 000	10 91
Average	58 542	9 05 %

Source Standard & Poor's XpressFeed – Bond Package

Interest Rates on Selected Government Instruments

Yield In Percent Per Annum, Constant Maturity Rates for 2008

	3 Mo.	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
January	2 82	2 71	2.48	2 51	2 98	3 31	3 74	4 35	4 33
February	2 17	2 05	1.97	2 19	2 78	3 21	3 74	4 49	4 52
March	1 28	1 54	1 62	1 80	2 48	2 93	3 51	4 36	4 39
April	1 31	1 74	2 05	2 23	2 84	3 19	3 68	4 44	4 44
May	1 76	2 06	2 45	2 69	3 15	3 46	3 88	4 60	4 60
June	1 89	2 42	2 77	3 08	3 49	3 73	4 10	4 74	4 69
July	1 66	2 28	2 57	2 87	3 30	3 60	4 01	4 62	4 57
August	1 75	2 18	2 42	2 70	3 14	3.46	3 89	4 53	4 50
September	1 15	1 91	2 08	2 32	2 88	3 25	3 69	4 32	4 27
October	0 69	1 42	1 61	1 86	2 73	3 19	3 81	4 45	4 17
November	0 19	1 07	1.21	1 51	2 29	2 82	3 53	4.27	4 00
December	0 03	0 49	0 82	1 07	1.52	1 89	2 42	3 18	2 87
Average	**1.39**	**1.82**	**2.00**	**2.24**	**2.80**	**3.17**	**3.67**	**4.36**	**4.28**



Source Federal Reserve statistical release H 15, Treasury Constant Maturities, Nominal

Equipment Trust Certificates for BNSF

Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current ($000) Market Value	Interest
1	BNSF Series AA (AT	9/24/11	8,940	6 705	7,823	3 659%	1 08910	8,519	312
2	BNSF 1999A	5/1/14	23,324	19,992	21,658	4 231%	1 07013	23,177	981
3	BNSF 1999 KFW	6/28/16	71,619	63,661	67,640	4 518%	1 10762	74,920	3,385
4	BNLC Dec98 KFW	1/2/2016	64,897	61,230	63,064	4 522%	1 06032	66,867	3,023
5	BNLC 2000 KFW	4/19/15	26,752	23,408	25,080	4 377%	1 13613	28,494	1,247
6	BNLC 2005-1 (1993 PT	01/02/12	28,882	22,581	25,732	3 889%	1 01118	26,019	1,012
7					–			–	–
8					–			–	–
9					–			–	–
10					–			–	–
11					–			–	–
12					–			–	–
13					–			–	–
14					–			–	–
15					–			–	–
	Total		$224 414	$197,577	$210,996	4.368%		$227,997	$9 960

Note
This list contains ETCs that can be used in the AAR's model to determine market value Some debt instruments labeled as ETCs do not have all of the characteristics typical of an ETC, and therefore cannot be modeled For example, ETCs with variable rates cannot be modeled

Non-Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending
1	BNLC - Barbados	04/16/12	21,533	16,932
2	BNLC - 1992 ETC	07/14/13	16,696	13,913
3	BNLC - 1995A PTT(I	07/01/13	6,083	5,515
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$44,312	$36,360

Equipment Trust Certificates for BNSF (continued)

Entire ETC Current – Not Used for Cost or Market Value

	ETC ID	Maturity	Balance 2008 ($000) Beg.	Ending
1	BNSF Series AA (BN	2/15/09	7,590	3,795
2	BNSF Series BB	11/1/09	8,284	4,142
3	BNLC - Jan 98	09/30/09	5,376	2,357
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$21 250	$10,294

Grand Totals (for reconciliation to carrier data)

	Balance For 2008 ($000) Beg.	Ending
Total Modeled	$224,414	$197,577
Total Non-Modeled	44,312	36,360
Sub Total	268,726	233,937
Total All Current	21,250	10,294
Grand Total	289,976	244,231

From BNSF:

Total ETCs	$244,231
Difference	$0

Equipment Trust Certificates for CSX

Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current Market Value	Interest
1	ETC CSX Series B 228	3/15/10	11,700	7,800	9,750	3 437%	1 08258	10,555	363
2	ETC CSX Series A 231	3/15/11	15 200	11,400	13,300	3 659%	1 07736	14,329	524
3	ETC CSX Series B 236	2/15/14	35,000	30,000	32,500	4 232%	1 05799	34,385	1,455
4	ETC CSX Series B 237	4/15/14	28,000	24,000	26,000	4 231%	1 07812	28,031	1,186
5	ETC CSX Series B 238	6/15/14	25,900	22,200	24,050	4 229%	1 10606	26,601	1,125
6	ETC CSX Series B 239	4/1/15	40,800	35,700	38,250	4 377%	1 14366	43,745	1,915
7	ETC CSX Series B 240	4/1/15	33,600	29 400	31,500	4 379%	1 11063	34,985	1,532
8					-			-	-
9					-			-	-
10					-			-	-
11					-			-	-
12					-			-	-
13					-			-	-
14					-			-	-
15					-			-	-
	Total		$190,200	$160,500	$175,350	4.205%		$192,631	$8,099

Note
This list contains ETCs that can be used in the AAR's model to determine market value Some debt instruments labeled as ETCs do not have all of the characteristics typical of an ETC, and therefore cannot be modeled For example, ETCs with variable rates cannot be modeled

Non-Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending
1	ETC CSX Series A 230	06/01/10	11,400	7,600
2	ETC CSX Series A 234	06/01/11	16,000	12,000
3	ETC CSX Series A 235	06/15/13	30,000	25,000
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$57,400	$44,600

Equipment Trust Certificates for CSX (continued)

Entire ETC Current – Not Used for Cost or Market Value

	ETC ID	Maturity	Balance 2008 ($000) Beg.	Ending
1	ETC CSX Series A 227	11/15/09	5,200	2,600
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$5,200	$2,600

Grand Totals (for reconciliation to carrier data)

	Balance For 2008 ($000) Beg.	Ending
Total Modeled	$190,200	$160,500
Total Non-Modeled	57,400	44,600
Sub Total	247,600	205,100
Total All Current	5,200	2,600
Grand Total	252,800	207,700

From CSX:

Total ETCs	$207 700
Difference	$0

Equipment Trust Certificates for NS

Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current Market Value	Interest
1	NSR Series H	7/15/13	25,200	21,000	23,100	4 070%	1 04623	24,168	984
2	NSR Series I	4/1/14	44,100	37,800	40,950	4.231%	1 06801	43,735	1,850
3	NSR Series J	7/1/14	43,750	37,500	40,625	4.229%	1 10997	45,093	1,907
4					-			-	-
5					-			-	-
6					-			-	-
7					-			-	-
8					-			-	-
9					-			-	-
10					-			-	-
11					-			-	-
12					-			-	-
13					-			-	-
14					-			-	-
15					-			-	-
	Total		$113,050	$96,300	$104,675	4.196%		$112,996	$4,741

Note
This list contains ETCs that can be used in the AAR's model to determine market value Some debt instruments labeled as ETCs do not have all of the characteristics typical of an ETC, and therefore cannot be modeled For example, ETCs with variable rates cannot be modeled

Non-Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$0	$0

Equipment Trust Certificates for NS (continued)

Entire ETC Current – Not Used for Cost or Market Value

	ETC ID	Maturity	Balance 2008 ($000) Beg.	Ending
1	NSR Series F	9/15/09	5,520	2,760
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$5,520	$2,760

Grand Totals (for reconciliation to carrier data)

	Balance For 2008 ($000) Beg.	Ending
Total Modeled	$113,050	$96,300
Total Non-Modeled	0	0
Sub Total	113,050	96 300
Total All Current	5,520	2,760
Grand Total	118,570	99,060
From NS		
Total ETCs		$99,060
Difference		$0

Equipment Trust Certificates for UP

Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current Market Value	Interest
1	ETC UPC Series C	2/1/12	20,750	16,600	18,675	3 884%	1 11492	20,821	809
2	ETC UPC Series G	6/15/11	21,740	16,305	19,023	3 659%	1 08489	20,637	755
3	ETC UPC Series H	12/1/11	18,800	14,100	16,450	3 659%	1 07157	17,627	645
4	ETC UPC Series I	2/23/19	71,058	64,194	67,626	4 847%	1 10170	74,503	3,611
5	ETC UPC Series J	1/2/2031	94,815	90,819	92,817	5 385%	1 07231	99,528	5,360
6					-			-	-
7					-			-	-
8					-			-	-
9					-			-	-
10					-			-	-
11					-			-	-
12					-			-	-
13					-			-	-
14					-			-	-
15					-			-	-
	Total		$227,163	$202 018	$214,590	**4.796%**		**$233,118**	$11,180

Note
This list contains ETCs that can be used in the AAR's model to determine market value Some debt instruments labeled as ETCs do not have all of the characteristics typical of an ETC, and therefore cannot be modeled For example, ETCs with variable rates cannot be modeled

Non-Modeled ETCs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$0	$0

Equipment Trust Certificates for UP (continued)

Entire ETC Current – Not Used for Cost or Market Value

	ETC ID	Maturity	Balance 2008 ($000) Beg.	Ending
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
	Total		$0	$0

Grand Totals (for reconciliation to carrier data)

	Balance For 2008 ($000) Beg.	Ending
Total Modeled	$227,163	$202,018
Total Non-Modeled	0	0
Sub Total	227,163	202,018
Total All Current	0	0
Grand Total	227,163	202,018
From UP:		
Total ETCs		$202,018
Difference		$0

Conditional Sales Agreements for BNSF

Modeled CSAs

	CSA ID	Maturity	Balance For 2008 ($000) Beg	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current Market Value	Interest
1					–			–	–
2					–			–	–
3	None				–			–	–
4					–			–	–
5					–			–	–
6					–			–	–
7					–			–	–
8					–			–	–
9					–			–	–
10					–			–	–
	Total		$0	$0	$0	–		$0	$0

Note
This list contains CSAs that can be used in the AAR's model to determine market value Some debt instruments labeled as CSAs do not have all of the characteristics typical of a CSA, and therefore cannot be modeled For example, CSAs with variable rates cannot be modeled

Non-Modeled CSAs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
	Total		$0	$0

	Balance For 2008 ($000) Beg.	Ending
Current CSAs Not Used	0	0
Grand Total All CSAs	$0	$0

Conditional Sales Agreements for CSX

Modeled CSAs

	CSA ID	Maturity	Balance For 2008 ($000) Beg.	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current Market Value	Interest
1	CSX 422	10/22/12	25,591	20,472	23,032	4 211%	1 06815	24,601	1,036
2	CSX 423	4/16/2012	31,261	25,009	28,135	4 212%	1 05876	29,788	1,255
3					–			–	–
4					–			–	–
5					–			–	–
6					–			–	–
7					–			–	–
8					–			–	–
9					–			–	–
10					–			–	–
	Total		$56,852	$45,481	$51,167	4.212%		$54,389	$2,291

Note
This list contains CSAs that can be used in the AAR's model to determine market value Some debt instruments labeled as CSAs do not have all of the characteristics typical of a CSA, and therefore cannot be modeled For example, CSAs with variable rates cannot be modeled

Non-Modeled CSAs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending	
1	CSA 424	Sept 2014	41,940	35,949	(uses a floating interest rate)
2					
3					
4					
5					
6					
7					
8					
9					
10					
	Total		$41,940	$35,949	

	Balance For 2008 ($000) Beg.	Ending
Current CSAs Not Used	0	0
Grand Total All CSAs	$98,792	$81,430

From CSX:

Total CSAs	$81,430
Difference from Grand Total	$0

Conditional Sales Agreements for NS

Modeled CSAs

	CSA ID	Maturity	Balance For 2008 ($000) Beg.	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current Market Value	Interest
1					--			--	--
2					--			--	--
3	None				--			--	--
4					--			--	--
5					--			--	--
6					--			--	--
7					--			--	--
8					--			--	--
9					--			--	--
10					--			--	--
	Total		$0	$0	$0	--		$0	$0

Note
This list contains CSAs that can be used in the AAR's model to determine market value Some debt instruments labeled as CSAs do not have all of the characteristics typical of a CSA, and therefore cannot be modeled For example, CSAs with variable rates cannot be modeled

Non-Modeled CSAs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
	Total		$0	$0

	Balance For 2008 ($000) Beg.	Ending
Current CSAs Not Used	0	0
Grand Total All CSAs	$0	$0

Conditional Sales Agreements for UP

Modeled CSAs

	CSA ID	Maturity	Balance For 2008 ($000) Beg.	Ending	Avg O/S	Current Valuation Interest Rate	Valuation Factor	Current Market Value	Interest
1					–			–	–
2					–			–	–
3	None				–			–	–
4					–			–	–
5					–			–	–
6					–			–	–
7					–			–	–
8					–			–	–
9					–			–	–
10					–			–	–
	Total		$0	$0	$0	–		$0	$0

Note:
This list contains CSAs that can be used in the AAR's model to determine market value Some debt instruments labeled as CSAs do not have all of the characteristics typical of a CSA, and therefore cannot be modeled For example, CSAs with variable rates cannot be modeled

Non-Modeled CSAs

	ETC ID	Maturity	Balance For 2008 ($000) Beg.	Ending
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
	Total		$0	$0

	Balance For 2008 ($000) Beg.	Ending
Current CSAs Not Used	0	0
Grand Total All CSAs	$0	$0

2008 Market Value of Debt ($000)

Type of Debt	Market Value: Traded or Modeled	Market Value: Non-Traded or Non-Modeled	Market Value: Total	Percent of: Subtotal	Percent of: Total
Bonds Notes & Debentures	$16,589,063	$9,030,275	$25,619,338	96 89%	85 95%
Equipment Trust Certificates	766,740		766,740	2 90%	2 57%
Conditional Sales Agreements	54,389		54,389	0 21%	0 18%
Sub Total	$17,410,193	$9,030,275	$26,440,468	100 00%	88 71%
All Other — Capital Leases		$2,672,338	$2,672,338	79 41%	8 97%
All Other — Misc Debt		576,082	576,082	17 12%	1 93%
All Other — Non-Modeled ETC		80,960	80,960	2 41%	0 27%
All Other — Non-Modeled CSA		35,949	35,949	1 07%	0 12%
Sub Total			$3,365,329	100 00%	11 29%
Total Market Value			**$29,805,797**		100 00%

General Notes:

Bonds, Notes, and Debentures from Appendix A Securities that did not trade were assigned a market value equal to their book value The traded portion accounts for 64 75 percent of the total market value for this category

Equipment Trust Certificates from Appendix C

Conditional Sales Agreements from Appendix D

Some ETCs and CSAs could not be modeled because they did not have all of the typical characteristics necessary for the model Those that could not be modeled were assigned a market value equal to their book value, and moved to the All Other category

Capital Leases and Miscellaneous Debt listed in work papers

The capital leases and miscellaneous debt portion of the All Other debt category was assigned a market value equal to its book value, and totals to $3 248,420 thousand The non-modeled ETCs and CSAs were also assigned a market value equal to their book value and totaled to $116,909 thousand The All Other category totals to $3,365,329 thousand, or 11 3 percent of total debt

2008 Flotation Costs for Bonds

From 424(b)(5)	BNI Deben Issued 3/14/08	BNI Notes Issued 11/25/08	CSX Notes Issued 3/27/08	CSX Notes Issued 3/27/08	CSXT SE Note Issued 10/24/08	NSC Notes Issued 4/4/08	UNP Notes Issued 2/5/08	UNP Notes Issued 10/7/08
Face Amount	$650,000 000	$500,000,000	$600,000,000	$400,000,000	$350,538,000	$600,000,000	$750,000 000	$750,000,000
Coupon Rate	5 750%	7 000%	6 250%	7 450%	8 375%	5 750%	5 700%	7 875%
Maturity Date	3/15/2018	2/1/2014	4/1/2015	4/1/2038	10/15/2014	4/1/2018	8/15/2018	1/15/2019
Frequency of Coupon Payment	2	2	2	2	2	2	2	2
Settlement Date	3/14/2008	11/25/2008	3/27/2008	3/27/2008	10/24/2008	4/4/2008	2/5/2008	10/7/2008
Price To Investors	99 767	99 983	99 943	99 927	100 000	99 723	99 661	99 817
Proceeds from Sale (before expenses)	$648,485,500	$499,915 000	$599 658,000	$399,708,000	$350,538,000	$598,338,000	$747,457,500	$748,627,500
Underwriter Fee as Pct of Gross Proceeds	0 650%	0 600%	0 625%	0 875%	0 600%	0 650%	0 650%	0 650%
Underwriter's Fee	$4,225 000	$3,000,000	$3 750,000	$3,500,000	$2,103 228	$3,900,000	$4,875,000	$4,875,000
Railroad Expenses Excluding Fee	$575,000	$435,000	$150,000	$100 000	$350,000	$501,000	$100,000	$100,000
Page in 424(b)(5) for Expenses	S-14	S-7	S-21	S-21	S-34	see note	S-13	S-7
Calculated								
Yield Based on Price to Investors	5 781%	7 001%	6 260%	7 456%	8 374%	5 787%	5 743%	7 899%
Issue Price Per $100 Less Flotation	$99 03	$99 30	$99 29	$99 03	$99 30	$98 99	$99 00	$99 15
Yield on New Issue Including Flotation	5 880%	7 162%	6 376%	7 532%	8 526%	5 885%	5 828%	7 995%
Flotation Costs (Difference in Pct Pts)	**0.099%**	**0.161%**	**0.116%**	**0 076%**	**0 152%**	**0 098%**	**0 085%**	**0 096%**
Average Flotation Cost (Pct Points)	**0.110%**							

Source SEC 424(b)(5) Filings except NSC Notes provided by carrier

CSX issued two sets of notes on 3/27/08 and non-fee expenses of $250,000 were allocated based on face amounts

Filed pursuant to Rule 424(b)(5)
A filing fee of $25,545, calculated in accordance with Rule 457(r) has been transmitted to the SEC in connection with the securities offered from the registration statement (Reg No 333-130214) by means of this prospectus supplement

Prospectus Supplement
(To Prospectus dated December 8, 2005)

$650,000,000

Burlington Northern Santa Fe Corporation

5.75% Notes due March 15, 2018

We will pay interest on the notes on March 15 and September 15 of each year The first such payment will be made on September 15, 2008 The notes will be issued only in minimum denominations of $2,000 and integral multiples of $1,000

We have the option to redeem all or a portion of the notes at any time See *"Description of Notes—Optional Redemption"* in this prospectus supplement There is no sinking fund for the notes

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Price to Investors(1)	Underwriting Discount	Proceeds, Before Expenses, to BNSF
Per Note	99 767%	0 650%	99 17%
Total	$648,485 500	$ 4,225,000	$644,260,500

(1) Plus accrued interest from March 14, 2008, if settlement occurs after that date

The notes offered by this prospectus supplement will not be listed on any securities exchange Currently, there is no public market for the notes

The underwriters expect to deliver the notes in book-entry form only, through the facilities of The Depository Trust Company against payment on March 14, 2008

Joint Book-Running Managers

Banc of America Securities LLC **Barclays Capital** **Wachovia Securities**

Co-Managers

BMO Capital Markets **BNP PARIBAS** **BNY Capital Markets, Inc.**

Mitsubishi UFJ Securities **SOCIETE GENERALE**

The Williams Capital Group, L.P.

The date of this prospectus supplement is March 11, 2008

Table of Contents

UNDERWRITING

We and the underwriters for this offering named below have entered into an underwriting agreement with respect to the notes Subject to certain conditions, each underwriter has severally agreed to purchase the principal amount of notes indicated in the following table Banc of America Securities LLC, Barclays Capital Inc and Wachovia Capital Markets, LLC are acting as joint book-running managers and as representatives of the underwriters

Underwriters	Principal Amount of Notes
Banc of America Securities LLC	$ 162,500,000
Barclays Capital Inc	162,500,000
Wachovia Capital Markets, LLC	162,500,000
BMO Capital Markets Corp	27,084,000
BNP Paribas Securities Corp	27,084,000
BNY Capital Markets, Inc	27,083,000
Mitsubishi UFJ Securities International plc	27,083,000
SG Americas Securities, LLC	27,083,000
The Williams Capital Group, L P	27,083,000
Total	$ 650,000,000

Notes sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus supplement Any notes sold by the underwriters to securities dealers may be sold at a discount from the initial public offering price of up to 0 40% of the principal amount Any such securities dealers may resell any notes purchased from the underwriters to certain other brokers or dealers at a discount from the initial public offering price of up to 0 25% of the principal amount If all the notes are not sold at the *initial offering price, the underwriters may change the offering price and the other selling terms*

The notes are a new issue of securities with no established trading market We have been advised by the underwriters that the underwriters intend to make a market in the notes but are not obligated to do so and may discontinue market making at any time without notice No assurance can be given as to the liquidity of the trading market for the notes

In connection with the offering, the underwriters may purchase and sell notes in the open market These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales Short sales involve the sale by the underwriters of a greater number of notes than they are required to purchase in the offering Stabilizing transactions consist of certain bids or purchases made for the purpose of preventing or retarding a decline in the market price of the notes while the offering is in progress

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased notes sold by or for the account of such underwriter in stabilizing or short covering transactions

These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the notes As a result, the price of the notes may be higher than the price that otherwise might exist in the open market If these activities are commenced, they may be discontinued by the underwriters at any time These transactions may be effected in the over-the-counter market or otherwise.

We estimate that our share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $575,000

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended.

In the ordinary course of their respective businesses, certain of the underwriters and their affiliates engage, and may in the future engage, in investment banking and commercial banking transactions with BNSF and its subsidiaries

2008 Current Cost of Debt

Type of Debt	Reference	Appendix E Weight	Current Cost	Weighted Cost
Type of Instrument				
Bonds, Notes & Debentures	App A & Table 4	96 89%	6 525%	6 322%
Equipment Trust Certificates	App C & Table 6	2 90%	4 432%	0 129%
Conditional Sales Agreements	App D & Table 7	0 21%	4 212%	0 009%
Total Without Floatation Costs		100 00%		6 459%
Floatation Costs				
Bonds, Notes & Debentures	App F	96 89%	0 110%	0 107%
Equipment Trust Certificates	SEC & Table 8	2 90%	0 082%	0 002%
Conditional Sales Agreements	SEC and Table 8	0 21%	0 081%	0 000%
Total Floatation Costs		100 00%		0 109%
Weighted Cost of Debt				6 568%
Weighted Cost of Debt (rounded)				**6.57%**

Market Value for Common Equity

Stock Data for BNI from Yahoo! Finance 1-7-09
http //ichart finance yahoo com/table csv?s=BNI&a=00&b=1&c=2004&d=00&e=3&f=2009&g=w&ignore= csv

Beg of Wk Date	Open	High	Low	End of Wk Close	Volume	Shares Outstanding	Capitalization ($000)
12/31/2007	83 19	84 83	78 51	78 64	2430100	350 631,059	27 573 626
1/7/2008	79 27	81 08	76 40	78 11	3970700	350 631,059	27 387,792
1/14/2008	78 89	79 49	76 16	76 93	4047600	350,631,059	26 974 047
1/22/2008	74 20	84 00	74 20	81 80	5443500	350,631,059	28,681,621
1/28/2008	82 48	88 55	81 15	88 30	3998400	350,631,059	30 960,723
2/4/2008	88 99	89 00	85 05	88 03	2890400	350,631,059	30,866,052
2/11/2008	88 66	91 30	86 60	89 11	3763400	348,201,513	31,028,237
2/19/2008	90 00	90 12	86 58	88 18	3340700	348,201 513	30,704,409
2/25/2008	88 40	91 20	87 09	87 78	2659800	348,201 513	30 565 129
3/3/2008	87 53	90 23	86 80	88 02	3125100	348,201,513	30,648,697
3/10/2008	88 27	92 88	86 37	90 80	4260400	348,201 513	31 616 697
3/17/2008	88 65	95 35	88 50	91 61	5053800	348,201 513	31,898,741
3/24/2008	92 53	96 31	91 70	91 99	2806800	348 201 513	32 031 057
3/31/2008	91 01	97 00	90 76	95 94	2804400	348,201 513	33 406 453
4/7/2008	96 84	96 84	91 71	93 19	2462600	348 201,513	32 448 899
4/14/2008	93 00	99 89	92 81	99 77	3150500	348 201,513	34 740 065
4/21/2008	99 42	100 25	96 84	99 75	2494100	348 201,513	34 733 101
4/28/2008	100 20	106 20	99 45	104 24	3535000	344,930,287	35 955 533
5/5/2008	104 75	105 62	102 10	103 47	1954700	344,930,287	35 689 937
5/12/2008	103 85	109 43	102 54	108 56	2193200	344,930,287	37 445 632
5/19/2008	108 92	112 40	104 85	106 14	2893900	344 930,287	36 610 901
5/27/2008	106 50	113 56	106 34	113 05	2998100	344 930 287	38 994 369
6/2/2008	113 27	114 58	110 20	110 40	3390500	344,930,287	38 080 304
6/9/2008	111 73	114 34	103 22	104 68	4600200	344 930 287	36 107 302
6/16/2008	104 19	106 12	100 51	103 02	4447700	344 930 287	35 534 718
6/23/2008	103 45	103 50	97 05	97 40	4255600	344,930,287	33 596 210
6/30/2008	97 41	100 78	92 18	93 83	4443800	344,930 287	32 364 809
7/7/2008	93 62	99 33	93 61	95 45	4552600	344,930 287	32 923 596
7/14/2008	96 41	97 77	90 86	94 57	4967500	344,930 287	32 620,057
7/21/2008	95 14	100 85	94 08	98 05	3725300	344,404 716	33 768 882
7/28/2008	97 94	106 29	96 55	101 76	4133600	344 404 716	35 046 624
8/4/2008	101 85	102 93	99 40	101 43	3587800	344 404 716	34 932 970
8/11/2008	101 42	102 80	94 22	98 87	3993300	344 404 716	34 051 294
8/18/2008	98 43	103 75	97 28	103 47	2679100	344 404 716	35 635 556
8/25/2008	103 23	108 04	101 59	107 40	3191200	344 404 716	36 989 066
9/2/2008	109 07	109 72	96 25	99 87	4950500	344 404,716	34 395 699
9/8/2008	102 61	104 68	96 23	101 84	5597600	344 404 716	35 074 176
9/15/2008	98 52	110 04	93 68	100 71	5502000	344 404,716	34 684 999
9/22/2008	99 65	100 64	95 15	98 34	3861800	344 404 716	33 868 760
9/29/2008	96 97	96 98	82 12	83 29	5927900	344 404,716	28 685 469
10/6/2008	79 91	87 10	74 27	80 16	7498000	344 404,716	27 607 482
10/13/2008	82 98	87 70	74 55	80 10	6625200	344 404,716	27 586 818
10/20/2008	81 02	85 89	76 00	80 00	4875400	342 326,358	27 386 109
10/27/2008	78 92	89 78	77 58	89 06	5674000	342 326,358	30 487 585
11/3/2008	88 97	91 98	79 27	81 25	6134000	342,326,358	27 814 017
11/10/2008	82 69	84 90	77 06	79 63	6953900	342 326,358	27 259 448
11/17/2008	78 06	79 61	68 31	73 29	7827700	342,326 358	25 089,099
11/24/2008	73 35	77 35	71 53	76 61	4553600	342,326,358	26,225,622
12/1/2008	74 87	76 48	71 38	74 68	5059100	342,326,358	25 564 932
12/8/2008	75 88	77.50	69 86	71 38	5324700	342,326,358	24,435,255
12/15/2008	72 59	77 86	70 08	73 66	3057200	342,326,358	25,215 760
12/22/2008	73 56	75 00	72 75	74 43	1202100	342,326,358	25,479,351
12/29/2008	74 17	78 77	71 67	78 45	2284100	342,326,358	26,855,503

Note Capitalization calulated using close of week price multiplied by the number of shares outstanding

Market Value for Common Equity

Stock Data for CSX from Yahoo! Finance 1-7-09

http //ichart finance yahoo com/table csv?s=CSX&a=00&b=1&c=2004&d=00&e=3&f=2009&g=w&ignore= csv

Beg of Wk Date	Open	High	Low	End of Wk Close*	Volume	Shares Outstanding	Capitalization ($000)
12/31/2007	44 21	45 02	40 45	40.73	5324700	420,425,477	17 123,930
1/7/2008	41 05	44 00	39 87	42 48	7391800	420,425,477	17 859,674
1/14/2008	42 91	44 25	40 40	41 18	6732900	420,425,477	17 313,121
1/22/2008	40 70	47 75	40 49	45 45	10014800	420,425,477	19,108,338
1/28/2008	45 60	50 08	45 19	49 93	6662000	420 425,477	20,991,844
2/4/2008	49 93	50 66	46 85	48 02	5706000	420 425,477	20,188,831
2/11/2008	48 10	50 44	46 79	48 78	5004800	420 425 477	20,508,355
2/19/2008	49 44	51 37	48 19	50 16	5863500	403 363,273	20,232,702
2/25/2008	50 15	53 29	47 72	48 52	6478700	403 363 273	19,571,186
3/3/2008	48 37	50 55	46 59	47 09	4951900	403 363 273	18,994,377
3/10/2008	47 22	50 42	46 57	48 97	5160200	403,363 273	19,752 699
3/17/2008	48 61	55 00	48 48	54 59	11063500	403,363,273	22,019 601
3/24/2008	54 81	58 10	54 81	56 55	7065900	403,363,273	22,810,193
3/31/2008	56 42	58 91	55 05	57 29	6186600	404,888,568	23,196 066
4/7/2008	57 58	58 41	55 04	56 31	3949700	404,888 568	22 799,275
4/14/2008	56 35	61 38	56 20	61 24	6612300	404,888,568	24 795,376
4/21/2008	61 53	62 21	58 30	61 94	4230400	404,888,568	25 078 798
4/28/2008	62 27	65 56	61 38	64 14	4953800	404,888,568	25 969,553
5/5/2008	64 00	65 20	62 64	63 24	3259900	404,888,568	25,605 153
5/12/2008	63 53	66 50	62 52	65 54	3818900	404 888,568	26 536,397
5/19/2008	65 70	70 70	65 37	66 73	6828900	404 888 568	27,018,214
5/27/2008	66 75	69 84	66 01	69 06	3944800	404,888,568	27,961,605
6/2/2008	69 36	69 36	64 10	65 41	4781400	404 888,568	26 483,761
6/9/2008	65 56	67 38	62 60	65 42	5196100	404 888 568	26,487,810
6/16/2008	64 59	67 10	63 02	64 83	5377600	404 888,568	26 248,926
6/23/2008	65 24	65 50	60 74	62 14	4559700	404 888 568	25,159,776
6/30/2008	62 36	63 94	56 52	57 36	6726000	407 642 147	23 382,354
7/7/2008	57 72	61 88	56 20	60 62	4933800	407 642 147	24,711,267
7/14/2008	61 24	62 48	55 76	60 88	6338600	407 642 147	24,817,254
7/21/2008	61 25	66 56	60 73	63 34	4111300	407 642 147	25,820 054
7/28/2008	63 19	69 50	61 58	66 17	5557400	407,642 147	26,973,681
8/4/2008	66 21	66 48	62 42	65 61	4317900	407,642 147	26,745 401
8/11/2008	65 57	66 71	57 09	60 91	6860300	407,642,147	24,829,483
8/18/2008	61 27	64 28	59 16	63 73	3659700	407,642,147	25,979 034
8/25/2008	63 85	65 41	62 17	64 68	2719900	407 642 147	26,366,294
9/2/2008	65 49	66 00	54 74	57 71	8004500	407,642,147	23 525 028
9/8/2008	59 69	62 15	52 03	61 61	9308200	407,642,147	25,114,833
9/15/2008	59 53	63 49	50 50	59 37	11355000	407,642 147	24,201 714
9/22/2008	59 38	59 69	54 77	56 39	5553500	407,642,147	22 986,941
9/29/2008	55 38	56 35	46 15	47 70	9145200	394,469,360	18 816 188
10/6/2008	45 51	49 25	40 36	43 31	8127300	394,469,360	17 084,468
10/13/2008	44 94	53 84	40 68	43 33	7121900	394,469,360	17 092,357
10/20/2008	45 05	46 72	39 95	42 38	5664400	394,469,360	16,717,611
10/27/2008	41 70	47 35	39 59	45 72	6574600	394,469,360	18 035,139
11/3/2008	46 38	47 41	41 29	42 77	7118500	394,469,360	16,871,455
11/10/2008	43 75	44 88	38 51	38 82	7312400	394,469,360	15,313,301
11/17/2008	38 36	38 90	30 69	33 70	10703800	394,469,360	13 293,617
11/24/2008	34 40	39 06	33 09	37 24	7713300	394,469,360	14 690,039
12/1/2008	36 28	36 31	31 68	34 15	5965100	394 469,360	13 471,129
12/8/2008	35 08	37 67	31.18	31 85	7086500	394 469,360	12 563,849
12/15/2008	32 12	36 00	30 73	31 60	5892300	394,469,360	12,465,232
12/22/2008	31 40	32 16	30 61	31 50	3399500	394 469,360	12 425,785
12/29/2008	31 37	35 00	30 01	34 62	4647300	394,469,360	13,656,529

Note Capitalization calulated using close of week price multiplied by the number of shares outstanding

Market Value for Common Equity

Stock Data for NSC from Yahoo! Finance 1-7-09
http //ichart finance yahoo com/table csv?s=NSC&a=00&b=1&c=2004&d=00&e=3&f=2009&g=w&ignore= csv

Beg of Wk Date	Open	High	Low	End of Wk Close	Volume	Shares Outstanding	Capitalization ($000)
12/31/2007	50 74	50 85	47 75	47 88	3528900	387,240,494	18 541,075
1/7/2008	48 08	48 64	46 20	46 46	4029900	387,240,494	17 991 193
1/14/2008	46 92	47 45	43 82	44 15	4531900	387,240,494	17,096,668
1/22/2008	41 36	51 55	41 36	50 74	8068300	387 240,494	19,648 583
1/28/2008	50 88	56 45	49 85	56 29	7658200	387 240,494	21,797 767
2/4/2008	56 21	56 21	52 26	54 41	4317900	376 332 668	20,476,260
2/11/2008	54 50	55 84	53 20	53 94	3122000	376,332,668	20,299,384
2/19/2008	54 46	54 85	52 13	53 18	3524200	376,332 668	20,013 371
2/25/2008	52 78	55 84	52 44	52 89	3687100	376,332 668	19,904,235
3/3/2008	52 72	55 00	51 69	51 94	3449500	376,332 668	19,546,719
3/10/2008	51 88	54 48	50 86	52 93	3656800	376,332 668	19,919,288
3/17/2008	51 51	56 96	51 14	53 07	5961700	376,332 668	19,971,975
3/24/2008	53 39	56 73	53 36	54 25	2765300	376,332 668	20,416,047
3/31/2008	54 13	57 74	53 35	56 80	3277600	376,332 668	21,375,696
4/7/2008	57 33	58 05	54 36	54 99	2986700	375,755 263	20,662,782
4/14/2008	55 07	61 75	54 78	61 64	4604500	375,755 263	23,161,554
4/21/2008	61 31	61 89	57 85	60 13	3716700	375,755 263	22,594,164
4/28/2008	60 45	61 00	59 08	60 19	2926600	375,755 263	22,616,709
5/5/2008	59 90	62 67	59 25	61 90	3094900	375,755 263	23,259,251
5/12/2008	62 19	65 23	61 30	64 31	3273300	375,755 263	24,164,821
5/19/2008	64 46	66 74	62 34	62 74	4159700	375,755 263	23,574,885
5/27/2008	62 75	67 74	62 75	67 38	4416100	375,755 263	25,318,390
6/2/2008	67 17	67 72	64 18	64 18	3717700	375,755 263	24,115,973
6/9/2008	64 81	65 60	60 74	63 42	4277300	375,755 263	23,830,399
6/16/2008	63 12	64 88	60 82	63 74	3767200	375,755,263	23,950,640
6/23/2008	64 14	64 20	60 50	61 04	3286500	375,755 263	22,936,101
6/30/2008	61 01	63 36	57 71	58 91	3982300	375,755 263	22,135,743
7/7/2008	59 73	63 12	57 92	61 78	3727800	375,199,214	23,179,807
7/14/2008	62 66	64 48	59 05	63 42	3695900	375,199 214	23,795,134
7/21/2008	63 30	72 85	62 82	70 11	4690700	375,199 214	26,305,217
7/28/2008	70 74	75 53	68 75	70 62	4568800	375,199 214	26,496,568
8/4/2008	70 67	73 66	68 95	73 55	3995400	375,199,214	27,595,902
8/11/2008	73 35	74 50	66 40	70 58	4553600	375,199,214	26,481,561
8/18/2008	70 71	71 24	67 00	70 99	2927000	375,199,214	26,635,392
8/25/2008	70 64	74 90	69 27	73 53	2784000	375,199,214	27,588,398
9/2/2008	72 44	74 50	63 47	66 39	5335900	375,199,214	24,909,476
9/8/2008	67 76	69 00	62 04	67 97	6091300	375,199 214	25,502,291
9/15/2008	65 37	72 56	64 34	70 36	6292700	375,199,214	26,399,017
9/22/2008	69 70	71 20	65 54	69 93	3979100	375,199 214	26,237,681
9/29/2008	68 99	69 53	55 02	56 17	5986700	375,199,214	21 074,940
10/6/2008	54 69	58 84	45 06	52 05	6708500	370,279,291	19 273,037
10/13/2008	54 52	60 66	48 13	52 54	5932300	370,279,291	19,454,474
10/20/2008	53 20	57 53	50 50	53 12	5418300	370,279 291	19,669,236
10/27/2008	53 04	62 57	51 29	59 94	4863500	370,279,291	22,194,541
11/3/2008	60 69	62 20	52 29	53 72	4761900	370,279,291	19,891,404
11/10/2008	54 90	56 18	47 49	51 98	5553200	370,279 291	19,247,118
11/17/2008	51 18	52 11	41 42	45 68	5695700	370,279,291	16,914,358
11/24/2008	46 60	50 25	44 82	49 47	3899700	370,279 291	18,317,717
12/1/2008	48 22	48 24	43 50	46 14	4997700	370,279,291	17,084,686
12/8/2008	47 48	49 67	43 20	44 52	4181200	370,279,291	16,484,834
12/15/2008	45 25	49 25	43 12	44 56	4181400	370,279,291	16,499,645
12/22/2008	44 16	44 90	43 50	44 36	2064700	370,279,291	16,425,589
12/29/2008	44 19	49 44	42 97	49 07	3189800	370,279,291	18,169,605

Note Capitalization calulated using close of week price multiplied by the number of shares outstanding

Market Value for Common Equity

Stock Data for UNP from Yahoo! Finance 1-7-09
http //ichart finance yahoo com/table csv?s=UNP&a=00&b=1&c=2004&d=00&e=3&f=2009&g=w&ignore= csv

Beg of Wk Date	Open	High	Low	End of Wk Close	Volume	Close Adj For Splits	Shares Outstanding	Capitalization ($000)
12/31/2007	127 00	127 39	119 66	120 04	4066900	60 02	525,247,810	31,525 374
1/7/2008	120 90	121 89	111 10	114 11	6241000	57 06	525,247 810	29,968 014
1/14/2008	115 25	116 34	107 62	110 45	5733100	55 23	525,247 810	29,006,810
1/22/2008	105 32	124 93	105 32	119 81	9245100	59 91	525,247,810	31 464,970
1/28/2008	120 22	128 33	115 00	127 97	10476800	63 99	525,247,810	33 607,981
2/4/2008	127 45	128 62	121 55	125 35	4793400	62 68	521,401,054	32 678,811
2/11/2008	125 56	128 22	122 64	124 80	4687600	62 40	521 401,054	32,535 426
2/19/2008	126 49	126 49	121 01	124 13	7152100	62 07	521,401,054	32,360 756
2/25/2008	124 45	129 50	122 40	124 76	5375700	62 38	521 401,054	32,524 998
3/3/2008	125 00	126 81	118 55	119 66	6813800	59 83	521,401,054	31,195 425
3/10/2008	119 00	125 93	118 28	122 75	5658000	61 38	521,401,054	32,000 990
3/17/2008	119 75	130 57	118 25	122 06	9511800	61 03	521,401 054	31,821,106
3/24/2008	122 80	130 00	122 42	125 02	4432700	62 51	521,401 054	32,592,780
3/31/2008	124 34	134 40	123 59	133 66	4924200	66 83	521,401 054	34,845,232
4/7/2008	134 91	135 00	128 04	130 21	4259900	65 11	521,401,054	33 945,816
4/14/2008	130 21	138 82	129 81	138 08	6419600	69 04	521,401,054	35 997,529
4/21/2008	137 60	141 25	132 89	140 59	6433700	70 30	516,747,040	36 324,733
4/28/2008	140 63	148 66	139 48	146 88	7585500	73 44	516 747,040	37,949,903
5/5/2008	148 58	149 37	144 41	146 28	3610000	73 14	516 747,040	37,794 879
5/12/2008	146 62	156 15	145 00	153 00	4687400	76 50	516 747,040	39,531 149
5/19/2008	155 00	159 65	150 24	152 16	6887000	76 08	516,747,040	39,314 115
5/27/2008	153 11	159 00	78 14	82 31	7910400	82 31	516,747,040	42,533 449
6/2/2008	82 12	82 76	77 90	77 95	5003300	77 95	516 747 040	40,280,432
6/9/2008	78 55	80 00	74 04	75 57	6256600	75 57	516,747,040	39 050,574
6/16/2008	75 22	78 58	71 90	76 88	8688800	76 88	516,747,040	39 727,512
6/23/2008	77 36	77 36	72 28	73 83	4771900	73 83	516,747,040	38 151,434
6/30/2008	73 87	76 06	69 61	70 85	5580300	70 85	516,747,040	36,611,528
7/7/2008	71 29	74 74	69 29	71 92	5078400	71 92	516 747,040	37 164,447
7/14/2008	72 65	74 43	67 90	72 54	5776800	72 54	516,747,040	37,484,830
7/21/2008	72 98	79 79	71 85	77 49	4589100	77 49	552,778,012	42,834 768
7/28/2008	78 09	84 25	76 02	79 44	6235400	79 44	552 778,012	43 912,685
8/4/2008	79 50	83 60	79 46	83 18	4830800	83 18	552 778,012	45,980,075
8/11/2008	83 15	83 31	73 53	76 87	7385100	76 87	552 778,012	42 492 046
8/18/2008	77 39	81 15	76 17	79 55	4344700	79 55	552 778 012	43,973 491
8/25/2008	79 96	84 95	78 39	83 90	4166400	83 90	552,778,012	46,378 075
9/2/2008	84 45	85 80	72 28	75 46	7978200	75 46	552,778 012	41,712 629
9/8/2008	77 77	78 80	70 25	77 80	8519500	77 80	552,778 012	43,006 129
9/15/2008	76 03	80 05	69 52	76 73	11419700	76 73	552,778 012	42,414 657
9/22/2008	76 71	76 99	71 00	73 27	6049600	73 27	552,778 012	40,502,045
9/29/2008	72 19	72 57	60 40	61 81	8747700	61 81	552,778 012	34 167,209
10/6/2008	59 37	65 41	51 75	58 00	9981100	58 00	552,778 012	32,061,125
10/13/2008	60 58	66 25	51 24	55 49	10342500	55 49	552,778,012	30 673,652
10/20/2008	57 06	61 12	53 11	58 28	7275200	58 28	506,430,904	29 514,793
10/27/2008	57 44	67 99	54 52	66 77	6539300	66 77	506 430,904	33 814 391
11/3/2008	66 69	69 75	59 24	60 99	6901900	60 99	506 430,904	30,887 221
11/10/2008	63 00	63 84	54 16	57 27	7759600	57 27	506 430,904	29 003 298
11/17/2008	56 64	58 92	43 78	47 50	9747300	47 50	506 430,904	24,055 468
11/24/2008	48 36	51 99	45 60	50 04	8211800	50 04	506,430,904	25 341 802
12/1/2008	49 62	49 62	44 86	47 49	6641500	47 49	506,430 904	24,050 404
12/8/2008	48 64	51 41	41 84	42 81	9464600	42 81	506 430,904	21,680 307
12/15/2008	43 33	49 92	42 05	46 27	7390100	46 27	506 430,904	23,432 558
12/22/2008	46 57	47 95	45 76	46 97	2656900	46 97	506,430,904	23,787,060
12/29/2008	46 80	50 40	44 90	50 13	3408500	50 13	506,430 904	25,387 381

Note Capitalization calulated using close of week price multiplied by the number of shares outstanding

Market Value for Common Equity

Total Market Value for BNI, CSX, NSC, and UNP combined
Based on close price on last trading day of week and shares outstanding from 10-K and 10-Q

	Trading Days For Week		Capitalization
	Beginning	End	($000)
1	Monday December 31, 2007	Friday, January 04 2008	$94,764,005
2	Monday January 07 2008	Friday, January 11, 2008	93 206,673
3	Monday, January 14, 2008	Friday, January 18 2008	90 390 647
4	Tuesday, January 22, 2008	Friday, January 25, 2008	98 903 511
5	Monday, January 28 2008	Friday, February 01, 2008	107,358 315
6	Monday, February 04, 2008	Friday, February 08, 2008	104,209,955
7	Monday, February 11, 2008	Friday, February 15, 2008	104,371,401
8	Tuesday February 19 2008	Friday, February 22 2008	103,311,239
9	Monday, February 25, 2008	Friday, February 29 2008	102,565,547
10	Monday, March 03, 2008	Friday March 07, 2008	100,385,218
11	Monday, March 10, 2008	Friday, March 14, 2008	103,289,675
12	Monday, March 17, 2008	Thursday, March 20, 2008	105,711,423
13	Monday, March 24, 2008	Friday March 28, 2008	107,850,077
14	Monday March 31, 2008	Friday, April 04, 2008	112,823,447
15	Monday April 07, 2008	Friday, April 11, 2008	109,856,772
16	Monday April 14, 2008	Friday, April 18, 2008	118,694,524
17	Monday, April 21 2008	Friday, April 25 2008	118,730,796
18	Monday, April 28, 2008	Friday, May 02 2008	122 491,698
19	Monday, May 05, 2008	Friday, May 09 2008	122 349 219
20	*Monday, May 12 2008*	*Friday, May 16 2008*	*127 677 998*
21	Monday, May 19 2008	Friday, May 23 2008	126 518 115
22	Tuesday May 27, 2008	Friday, May 30 2008	134 807,812
23	Monday, June 02, 2008	Friday, June 06, 2008	128,960,469
24	Monday, June 09, 2008	Friday, June 13, 2008	125 476 085
25	Monday, June 16, 2008	Friday, June 20, 2008	125 461 797
26	Monday, June 23, 2008	Friday, June 27, 2008	119,843,521
27	Monday, June 30, 2008	Thursday July 03, 2008	114,494 433
28	Monday, July 07, 2008	Friday, July 11, 2008	117,979,117
29	Monday, July 14, 2008	Friday, July 18, 2008	118,717,276
30	Monday, July 21, 2008	Friday, July 25, 2008	128,728 921
31	Monday July 28, 2008	Friday August 01 2008	132,429,559
32	Monday, August 04, 2008	Friday August 08 2008	135,254,349
33	Monday, August 11, 2008	Friday August 15 2008	127,854,384
34	Monday August 18, 2008	Friday August 22 2008	132,223 473
35	Monday August 25 2008	Friday, August 29 2008	137,321,834
36	Tuesday, September 02, 2008	Friday September 05, 2008	124 542,832
37	Monday September 08, 2008	Friday September 12, 2008	128,697,429
38	Monday September 15 2008	Friday September 19, 2008	127,700,387
39	Monday September 22, 2008	Friday, September 26, 2008	123,595,426
40	Monday September 29, 2008	Friday, October 03, 2008	102,743,806
41	Monday, October 06, 2008	Friday, October 10, 2008	96,026,112
42	*Monday, October 13, 2008*	*Friday, October 17, 2008*	*94,807,301*
43	Monday, October 20, 2008	Friday, October 24, 2008	93,287,749
44	Monday October 27, 2008	Friday, October 31, 2008	104,531,657
45	Monday, November 03 2008	Friday, November 07, 2008	95,464,095
46	Monday, November 10, 2008	Friday, November 14, 2008	90,823,164
47	Monday, November 17 2008	Friday, November 21 2008	79,352,542
48	Monday, November 24, 2008	Friday, November 28 2008	84,575,180
49	Monday, December 01 2008	Friday, December 05, 2008	80,171,151
50	Monday, December 08 2008	Friday, December 12 2008	75 164 246
51	Monday, December 15, 2008	Friday, December 19, 2008	77,613 194
52	Monday, December 22, 2008	Friday, December 26, 2008	78,117 785
	Average		**$109,850,526**

STB-Style 5-Year Beta using SP 500 Price Index, Weighted RR Returns, 90-Day T-Bill as RF

The GLM Procedure

Dependent Variable: ZRR

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	0.14456300	0.14456300	188.45	<.0001
Error	258	0.19791599	0.00076712		
Corrected Total	259	0.34247899			

R-Square	Coeff Var	Root MSE	ZRR Mean
0.422108	934.0864	0.027697	0.002965

Source	DF	Type I SS	Mean Square	F Value	Pr > F
ZSP5	1	0.14456300	0.14456300	188.45	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
ZSP5	1	0.14456300	0.14456300	188.45	<.0001

STB-Style 5-Year Beta using SP 500 Price Index, Weighted RR Returns, 90-Day T-Bill as RF

The GLM Procedure

Dependent Variable: ZRR

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	0.0038669909	0.00171894	2.25	0.0253
ZSP5	0.9337851704	0.06802194	13.73	<.0001

BEFORE THE

SURFACE TRANSPORTATION BOARD

RAILROAD COST OF CAPITAL - 2008	)	Ex Parte No. 558 (Sub-No. 12)

VERIFIED STATEMENT

OF

BRUCE E. STANGLE

CHAIRMAN, ANALYSIS GROUP, INC.

ON BEHALF OF

ASSOCIATION OF AMERICAN RAILROADS

April 20, 2009

I. INTRODUCTION AND SUMMARY

1 My name is Bruce E. Stangle, and I submitted verified statements on behalf of the Association of American Railroads ("AAR") in STB Ex Parte No 664 (Sub-No. 1) on April 14, 2008 and October 14, 2008 These statements provided cost of equity estimates for the railroad industry based on the Morningstar/Ibbotson Multi-Stage Discounted Cash Flow Model ("MSDCF") and discussed the merits of using the Morningstar/Ibbotson MSDCF in combination with the Board's CAPM to estimate the railroad industry's cost of equity. Prior to my participation in STB Ex Parte No. 664 (Sub-No 1), I submitted two verified statements (joint with Professor R. Glenn Hubbard) on behalf of the AAR in STB Ex Parte No. 664 Those statements addressed specific issues related to the Board's implementation of the CAPM and advocated supplementing the Board's CAPM with a multi-stage DCF model such as the one published annually by Morningstar/Ibbotson.[1] In STB Ex Parte No. 664 I also submitted written testimony and testified in person before the Board on February 12, 2007 and December 4, 2007 My background and qualifications are described in my September 27, 2007 verified statement.

2. I have been asked by counsel for the AAR to work with the AAR staff in submitting evidence that will allow the Board to update its 2007 finding regarding the railroad industry's cost of capital. Specifically, because this is the first year in which the cost of equity will be determined using an average of the CAPM and the Morningstar/Ibbotson MSDCF model, I was asked by counsel to provide the AAR staff with the necessary MSDCF estimate and describe in detail the specific steps and data inputs I used to derive my estimate. I have also provided counsel for the AAR with the workpapers that support my estimate

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[1] See "Verified Statement of R Glenn Hubbard and Bruce E Stangle," In the Matter of Methodology to be Employed in Determining the Railroad Industry's Cost of Capital, STB Ex Parte No 664, September 27, 2007, ¶¶ 48-52 See also, "Reply Verified Statement of R Glenn Hubbard and Bruce E Stangle " In the Matter of Methodology to be Employed in Determining the Railroad Industry s Cost of Capital, STB Ex Parte No 664, October 29, 2007, ¶ 19

3. My estimate of the 2008 railroad cost of equity using the Morningstar/Ibbotson MSDCF model is 16.29 percent. The method I used to derive this estimate is consistent with the Board's August 11, 2008 proposal and subsequent January 28, 2009 decision in STB Ex Parte No 664 (Sub-No. 1). My method is also consistent with the most recent published documentation from Morningstar/Ibbotson describing its MSDCF model The method I used is intended to be transparent so that it can be readily updated by the AAR and other interested parties in future years

II. DATA INPUTS USED IN THE MORNINGSTAR/IBBOTSON MSDCF MODEL

4. The specific financial formula used by Morningstar/Ibbotson to implement its three-stage discounted cash flow model of the cost of equity is clearly expressed in the Morningstar/Ibbotson *Cost of Capital Yearbook* The formula is shown in the Appendix to this verified statement and is identical to the formula contained in the Board's August 11, 2008 proposal in STB Ex Parte No 664 (Sub-No 1).

5 The financial inputs to the Morningstar/Ibbotson MSDCF model are cash flows, the expected growth of earnings, and firm stock market values for those railroads that meet all of the screening criteria described in the Board's March 5, 2009 statement initiating this proceeding (i e., Burlington Northern Santa Fe, CSX, Norfolk Southern, and Union Pacific). I describe my methodology for collecting these financial inputs below.

6. **Cash flows.** The Morningstar/Ibbotson MSDCF model defines cash flows (CF) as income before extraordinary items (IBEI) minus capital expenditures (CAPEX) plus depreciation (DEP) plus deferred taxes (DT) That is,

$$CF = IBEI - CAPEX + DEP - DT \qquad \text{(Equation 1)}$$

IBEI, is computed by deducting extraordinary items from net income. These financial data are then averaged over five years (in this case, 2004-2008) using the procedure described in the Board's January 28, 2009 decision in STB Ex

Parte No. 664 (Sub-No. 1). This averaging process requires the collection of sales revenue for each year of the relevant period.

7 Consequently, constructing the five-year average cash flow measure as of 2008 requires the collection of data on six financial measures for each railroad for the fiscal years 2004 through 2008. These measures are:

- Net income
- Extraordinary items
- Capital expenditures
- Depreciation
- Deferred taxes
- Sales revenue

8 After these financial data are collected, they are combined into an average cash flow measure for 2008 using the procedure illustrated in Exhibit 1 below, which shows as an example the average cash flow calculation for CSX

Exhibit 1
Average Cash Flow Calculation for CSX in 2008
($ in Millions)

		2004	2005	2006	2007	2008	Total
[A]	Net Income	$339	$1,145	$1,310	$1,336	$1,365	$5,495
[B]	*Less*: Extraordinary Items	($79)	$425	$0	$110	$0	$456
[C]	IBEI	$418	$720	$1,310	$1,226	$1,365	$5,039
[D]	Capital Expenditures	$1,030	$1,136	$1,639	$1,773	$1,740	$7,318
[E]	Depreciation	$730	$833	$867	$890	$918	$4,238
[F]	Deferred Taxes	$240	($46)	$42	$272	$435	$943
[G]	CF	$358	$371	$580	$615	$978	$2,902
[H]	Sales	$8,020	$8,618	$9,566	$10,030	$11,255	$47,489
[I]	Ratio of CF to Sales [$2,902/$47,489] =						0 06111
[J]	Average Cash Flow in 2008 [0 06111 x $11,255] =						$688

Source: Stangle workpapers, April 20, 2009

9 The average cash flow for 2008 is calculated by dividing the total cash flow over the 2004-2008 period ($2,902 million; row G in Exhibit 1) by the total sales over the period ($47,489 million, row H) to obtain an average cash flow to sales ratio (0.06111; row I). This cash flow to sales ratio is then multiplied by sales revenue in 2008 ($11,255 million; row H) to obtain the 2008 average cash flow ($688 million; row J) that is used as the starting point of the Morningstar/Ibbotson MSDCF model (CF_0 in the Appendix).

10 The financial data illustrated in Exhibit 1 are reported on the consolidated financial statements contained in each railroad's annual 10-K filing with the Securities and Exchange Commission. The railroads typically file their 10-K forms within three months after the end of the fiscal year, which is December 31 for the four railroads that meet the Board's screening criteria. Capital expenditures, depreciation, and deferred taxes were collected from each railroad's statement of cash flows, while net income and sales revenue were collected from each railroad's income statement. Extraordinary items (if any) are reported, net of tax effects, as line items on the income statement.

11 According to a recognized accounting textbook (Stickney et al.), extraordinary items are characterized by their "unusual nature" and "infrequency of occurrence."[2] Extraordinary items generally fall into one or more of the following categories: (1) extraordinary gains or losses, (2) gains or losses from discontinued operations, and (3) cumulative effects of accounting changes. In constructing the cash flow inputs for the Morningstar/Ibbotson MSDCF model as shown in Exhibit 1, adjustments for extraordinary items were made for CSX in 2004, 2005, and 2007 because of gains/losses from discontinued operations.

12 **Growth rates.** The first stage of the Morningstar/Ibbotson MSDCF model applies to a period that is one to five years in the future (the current year is considered to be year 0). In each year of the first stage, a firm's annual earnings growth rate is assumed to be the median value of the firm's three- to five-year

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[2] Clyde P. Stickney, et al. *Financial Accounting: An Introduction to Concepts, Methods, and Uses*. South-Western, 2007, p. 868.

growth estimates that are made by railroad industry analysts after the release of the year-end financial statements. These analyst estimates are collected by I/B/E/S and subsequently distributed by Thomson Financial through its Thomson ONE Investment Management service.[3] Exhibit 2 shows the median earnings growth rate estimate for each railroad used in the Morningstar/Ibbotson MSDCF model. The individual analyst estimates that contribute to the median estimates shown in Exhibit 2 are contained in my workpapers.[4]

Exhibit 2
2008 I/B/E/S Median Growth Rate Estimates

Railroad	Growth Rate
Burlington Northern Santa Fe	10.00%
CSX	10.00%
Norfolk Southern	10.00%
Union Pacific	10.20%
Average	**10.05%**

Source: Stangle workpapers, April 20, 2009

13 The second stage of the Morningstar/Ibbotson MSDCF model applies to a period six to ten years in the future. In this stage, the cash flows at the end of year five are assumed to grow at the average of the individual firm rates used in stage 1. As shown in Exhibit 2, the average growth rate was 10.05 percent.

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[3] The analyst estimates used in the first stage of the model are referred to by Thomson Financial as the "Long Term Growth Forecasts." The Thomson Financial Glossary describes the estimates as follows: "While different analysts apply different methodologies, the Long Term Growth Forecast generally represents an expected annual increase in operating earnings over the company's next full business cycle. In general, these forecasts refer to a period of between three to five years." See 2004 *Thomson Financial Glossary & Guide to Understanding Thomson Financial Terms and Conventions for the First Call and I/B/E/S Estimates Databases*, p. 23 (excerpt provided in Stangle workpapers, April 20, 2009).

[4] Thomson Financial also distributes I/B/E/S median growth rate estimates on a historical basis through its Thomson ONE Banker service. The median estimates provided through this service do not always reflect the full set of I/B/E/S growth rate estimates, whereas the median estimates shown in Exhibit 2 incorporate all of the available estimates. The median growth rate estimates from the Thomson ONE Banker service would be 10.00%, 9.10%, 10.00%, and 14.20% for BNSF, CSX, NSC, and UP, respectively.

14 The third stage of the MSDCF model begins 11 years in the future and continues in perpetuity. Starting in year 11, the firm's growth rate is assumed to be the long-run nominal growth rate of the aggregate U.S economy For 2008 the long-run nominal growth rate used by Morningstar/Ibbotson is 3.9 percent, which is the sum of the long-run expected growth in real output (3.3 percent) and long-run expected inflation (0 6 percent) [5]

15 The third-stage growth rate is applied to a cash flow value that is based on two additional assumptions about the long-run: (i) depreciation equals capital expenditures: and (ii) deferred taxes are zero That is, cash flow in the third stage of the model is based only on income before extraordinary items (IBEI). whereas in stages 1 and 2 it is based on the expression in Equation 1 above. The initial value of IBEI (denoted as $IBEI_0$ in the Appendix) is determined through the same averaging process that is illustrated in Exhibit 1 for cash flows [($5,039 million/$47,489 million) x $11,255 million = 0 1061 x $11,255 million = $1,194 million].

16 **Market values.** The final inputs to the Morningstar/Ibbotson MSDCF model are the stock market values for the equity of each railroad (MV_0 in the Appendix). These data were collected from Thomson Financial following the Morningstar/Ibbotson practice of using stock market values that reflect the release of year-end financial statements.[6]

III. THE RAILROAD INDUSTRY'S ESTIMATED COST OF EQUITY USING THE MORNINGSTAR/IBBOTSON MSDCF MODEL

17. Equation A1 of the Appendix gives the mathematical formula that is used to generate the three-stage DCF cost of equity estimates for each railroad. The left side of this equation is the market value of the firm in year 0 The right side of

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[5] *Ibbotson SBBI, 2009 Valuation Yearbook, Market Results for Stocks, Bonds Bills, and Inflation 1926-2008* Morningstar Inc , pp 52-53

[6] See *Cost of Capital Yearbook*, 2008 Morningstar Inc , p 1 ("By the end of March many companies have reported their previous year's financial results ") Railroad stock market values are also reported at financial web sites such as the Yahoo Finance Stock Research Center. available at http biz yahoo com r.

the equation is the discounted value of the cash flows from the three stages of the firm's expected future growth. The numerator of the final term in Equation A1 [specifically, $IBEI_{10}(1+g_3)/(r-g_3)$] is often referred to as the terminal value of the model because it represents the value in year 10 of the perpetual stream of cash flows that begins in year 11. Equation A1 in the Appendix is solved for the cost of equity (r) using a relatively simple but powerful numerical tool, Microsoft Excel's Solver function.[7] Applying the methods described above, *Exhibit 3 below shows the MSDCF estimate for each of the four railroads*

Exhibit 3
2008 Cost of Equity Estimates
Morningstar/Ibbotson MSDCF Model

Railroad	Cost of Equity
Burlington Northern Santa Fe	16.32%
CSX	16.79%
Norfolk Southern	19.75%
Union Pacific	13.95%
Weighted Average	16.29%

Source: Stangle workpapers, April 20, 2009.

18 According to the Board's August 11, 2008 proposal in STB Ex Parte No. 664 (Sub-No. 1), the overall MSDCF estimate for the group of four railroads is the market value weighted average cost of equity (see Equation A2 of the Appendix). Exhibit 3 shows that the market value weighted MSDCF estimate for the group is 16.29 percent. Details of this and the other calculations are in my workpapers.

A commonly used Excel user's manual describes the Solver function as follows: "Solver is an Excel add-in that goes several steps further than goal seeking. It uses the same basic trial-and-error approach (known to scientific types as an *iterative* approach), but it's dramatically more intelligent than goal seeking." See Matthew McDonald, *Excel: The Missing Manual*, O'Reilly Media, 2005, p. 519.

APPENDIX

The cost of equity for each firm (r_i) in the Morningstar/Ibbotson three-stage DCF model is the solution to the following equation:[8]

$$MV_{i0} = \sum_{t=1}^{5} \frac{CF_{i0}(1+g_{i1})^t}{(1+r_i)^t} + \sum_{t=6}^{10} \frac{CF_{i5}(1+g_{i2})^t}{(1+r_i)^t} + \frac{\frac{IBEI_{i10}(1+g_{i3})}{r_i - g_{i3}}}{(1+r_i)^{10}} . \qquad \text{(Equation A1)}$$

where

MV_{i0} = market value of equity for firm i in year 0 (i e.. the year for which the cost of equity is being estimated)

CF_{it} = average cash flow for firm i at the end of year t.

g_{ij} = earnings growth rate for firm i in stage j (j = 1, 2, or 3)

$IBEI_{10} = IBEI_0(1+g_1)^5(1-g_2)^5$

Note that $IBEI_0$ is determined by the same process as CF_0 (see Exhibit 1).

The industry cost of equity (R) for the three-stage DCF model is computed as the market value weighted average of the individual firm cost of equity estimates

$$R = \sum_{i=1}^{N} s_i r_i . \qquad \text{(Equation A2)}$$

where s_i is firm i's share of the total industry market value and N is the number of firms in the industry composite: $s_i = \frac{MV_{i0}}{\sum_{i=1}^{N} MV_{i0}}$.

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[8] *Cost of Capital Yearbook*, 2008 Morningstar, Inc , p 24

VERIFICATION

I, Bruce E Stangle, declare under penalty of perjury that the foregoing is true and correct.

Executed on April 20, 2009

Bruce E. Stangle

Bruce E. Stangle